

Public Utilities



Volume 56 No. 2

July 21, 1955

THE PUGET SOUND UTILITIES COUNCIL

By Edward R. Lucas

« »

Uncle Sam—Biggest Utility Customer

By David A. Kosh

« »

Barometers of Good Will

By Alfred M. Cooper

« »

High Lights of the EEI Convention
Survey of Utility Losses Due to Bad Handwriting



"We have discovered automatic controls which can replace management!"

AUTOMATION IS HERE. Each copy of *Electrified Industry* has many ideas which your large customers can use to make their operations automatic and profitable. It helps you mechanize your selling, too, by making good calls on industrial customers, at 21c each. Your power salesman can tell you how this magazine helps them to maintain better-than-ever customer contact and to increase your net revenue.

BE SURE TO SEND *Today's Business* to your leading store-and-office customers. It builds your commercial revenues, helps modernize your communities.

ELECTRIFIED INDUSTRY and *Today's Business*

Martin Publications — 20 No. Wacker Dr., Chicago 6

Editor-in-Chief • ELLSWORTH NICHOLS

Editorial Consultant • HENRY C. SPURR

Editor • FRANCIS X. WELCH

Associate Editors • RALPH S. CHILD

FRANKLIN J. TOBEY, JR.

FORRESTER MAPHIS

NEIL H. DUFFY

DONALD E. ROBINSON

NORMAN J. BARATT

EARLE W. PUTNAM

Assistant Editors • M. C. MCCARTHY
M. L. WILLIAMS

Financial Editor • OWEN ELY

Advertising Manager • E. L. COOKE

Circulation Manager • E. S. STEVENS

Public Utilities

FORTNIGHTLY

VOLUME 56

JULY 21, 1955

NUMBER 2



REPRINTS OF ARTICLES

(200 or more copies)
available on orders received within 30 days after publication date.

Address

WASHINGTON OFFICE
for quotations.

PUBLIC UTILITIES FORTNIGHTLY . . stands for federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for non-discriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

Subscriptions: Address correspondence to **PUBLIC UTILITIES FORTNIGHTLY**, circulation department, Munsey Building, Washington 4, D. C. Allow one month for change of address.

Single copies \$1.00. Annual subscription price (26 issues a year): United States and possessions, \$15.00; Pan American countries, \$15.00; Canada, \$16.00; all other countries, \$17.50.

Entered as second-class matter April 29, 1915, under the Act of March 3, 1879, at the Post Office at Baltimore, Md., December 31, 1936. Copyrighted, 1955, by Public Utilities Reports, Inc. Printed in U. S. A.

ARTICLES

- The Puget Sound Utilities Council . . . *Edward R. Lucas* 77
Uncle Sam—Biggest Utility Customer . . . *David A. Kosh* 84
Barometers of Good Will *Alfred M. Cooper* 95

FEATURE SECTIONS

- Out of the Mailbag 102
Washington and the Utilities 105
Wire and Wireless Communication 108
Financial News and Comment *Owen Ely* 111
What Others Think 120
 High Lights of the EEI Convention 120
 Survey of Utility Losses Due to Bad Handwriting 127
The March of Events 129
Progress of Regulation 133
• Pages with the Editors. 6 • Remarkable Remarks . . 12
• Utilities Almanack . . . 75 • Frontispiece 76
• Industrial Progress . . . 23 • Index to Advertisers . . 36

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Executive, Editorial & Advertising Offices. MUNSEY BLDG., WASHINGTON 4, D. C.
Publication Office CANDLER BUILDING, BALTIMORE 2, MD.

Advertising Representatives:

New York 6: Robert S. Farley, 111 Broadway, COrtland 7-6638
Cleveland 15: Macintyre-Simpson & Woods, 1900 Euclid Avenue, CHerry 1-1501
Chicago 1: Macintyre-Simpson & Woods, 75 E. Wacker Drive, CEntral 6-1715
Pacific Coast: M. D. Pugh, 2721 North Marengo Avenue, Altadena, Calif., SYcamore 7-2894

B&W Cyclone Furnace

a growing factor in the

Cost-saving advantages vital to power plant operators are responsible for the mounting acceptance of the Cyclone Furnace. Each represents an important advance in the relentless search of power engineers and designers for more efficient ways to further lower the cost of generating steam for power.

The Cyclone Furnace—

- **Reduces atmospheric pollution to extremely low levels**
- **Simplifies ash handling and disposal**
- **Burns fuel with greater efficiency**
- **Provides greater fuel flexibility with attendant lower costs**
- **Reduces overall first cost**
- **Increases safety by simplifying operation**
- **Reduces maintenance**
- **Increases availability**

Originally designed and developed to burn more efficiently a wide range of coals, as well as oil and gas, the Cyclone Furnace is now being installed in areas where factors other than fuel are prime contributors to higher power generating costs. For whatever the problems — fuel, fly-ash, availability, cost, maintenance — the Cyclone Furnace contributes directly and substantially toward solving them.

With its revolutionary approach to the entire process of preparing and burning fuel, the B&W Cyclone Furnace offers such a simplification of initial design and increased facility in everyday operation, that the overall cost of producing power is greatly benefited. Let us discuss with you the various cost-saving advantages of the Cyclone Furnace for your operation. The Babcock & Wilcox Company, Boiler Division, 161 East 42nd Street, New York 17, N. Y.

● = ONE CYCLONE FURNACE BOILER
IN SERVICE OR BEING BUILT

lower-cost-power picture



Pages with the Editors

THE Eisenhower administration's "partnership" program seems to be making quite a change in the old picture of public *versus* private conflict, which has heretofore followed a pattern of implacable feuding for nearly two decades. And the new approach is not confined to the Pacific Northwest, where the "partnership" program was first officially launched.

ONLY a month ago the New York State Power Authority announced tentative approval of a plan to sell to local interests half of its St. Lawrence river output of 735,000 kilowatts of firm and 125,000 kilowatts of interruptible power. Private utilities would come in for 143,000 kilowatts of firm and 37,000 kilowatts of interruptible.

IN May word came out of the Northwest that Northern States Power Company, Minneapolis; Interstate Power Company, Dubuque, Iowa; and Otter Tail Power Company, Fergus Falls, Minnesota, signed a contract with the federal government to deliver Missouri river basin power to "preference" customers in the Minnesota-Dakota-Iowa area.

OUT on the West coast, Pacific Gas and Electric Company has offered a "partner-

ship" proposal to the Bureau of Reclamation for co-operative development of the Trinity river in northern California as part of an existing Central Valley project. The big California utility company estimates that its proposal would save the federal taxpayers \$50,000,000 in initial capital outlays. The Public Service Company of Colorado has indicated its willingness to "wheel" power from the Colorado river storage and Fryingpan-Arkansas projects if they are authorized by Congress.

THE Carolina Power & Light Company has made a similar offer to transmit power from the John H. Kerr dam on the Roanoke river in Virginia to rural co-operatives in its service area. The neighboring Georgia Power Company likewise stands ready to let its transmission facilities be used to carry Clark Hill power to "preference" customers.

BUT it is in the Pacific Northwest that the most noteworthy steps towards a real "partnership" of federal and local and private interests are taking shape. On one project—the proposed \$310,000,000 John Day dam—a bill pending in Congress would have three northwest utilities (Washington Water Power Company, Pacific Power & Light Company, and Portland General Electric Company) raise nearly 90 per cent of the total. Under this proposal the entire undertaking would be owned and operated by the federal government.

THE opening article in this issue deals with a unique organization for carrying out a "partnership" program — Puget Sound Utilities Council. This article presents an interesting set of facts on the combination of privately owned and publicly owned utilities in the Pacific Northwest. The author, EDWARD R. LUCAS, analyzes the working arrangements between federal, municipal, and private or-



EDWARD R. LUCAS

You may find a fresh approach...

Tackling utility company problems daily . . . maintaining close and continued contact with the financial world gives us an understanding of the complex field of utility financing and investor relations which may be of help to you.

A fresh approach to the problem you are now studying may be suggested by a talk with us. Call Public Utilities Department at DIgby 4-3500 or write us at One Wall Street.

IRVING TRUST COMPANY

ONE WALL STREET • NEW YORK 15, N. Y.

Capital Funds over \$125,000,000

Total Assets over \$1,400,000,000

WILLIAM N. ENSTROM, Chairman of the Board

RICHARD H. WEST, President

Public Utilities Department—JOHN F. CHILDS, *Vice President in Charge*

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

PAGES WITH THE EDITORS (Continued)

ganizations under the new Puget Sound Utilities Council. It is a voluntary and flexible group, sponsoring a program which requires no help from the federal government even for large projects. The author, MR. LUCAS, is a native of the state of Washington and is a graduate of the school of journalism of the University of Washington ('34). He has been a freelance feature writer for business and industrial magazines for the last ten years.

* * *

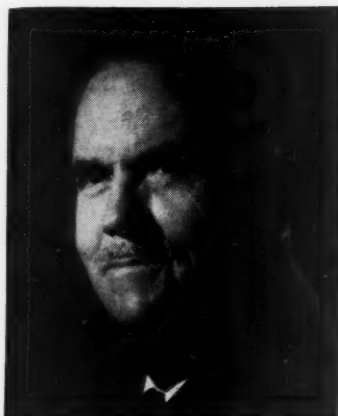
SEVERAL years ago a small group was organized within the procurement division of the U. S. Treasury to look after the growing and varied interests of Uncle Sam as a utility customer. One of the pioneers in organizing this group was DAVID A. KOSH, whose article on the organization with which public utilities must deal when they serve the federal government begins on page 84.

NEEDLESS to say, the federal government is becoming year by year a bigger and bigger customer of all forms of utility service. As a matter of fact, the federal government's own rôle as a utility customer is probably growing faster than the rapidly expanding general average of utility customer relations.

MR. KOSH, now engaged as an expert rate case consultant, was educated at Columbia University (BS and MS in civil engineering). He also has a degree of master of business administration from the Graduate School of Business Administration, New York University. From 1934 to 1937 he worked as an engineer with the TVA. Then after some engineering experience with the American Gas & Electric Company, he became a research assistant in the public utilities department of New York University, where he remained until 1942, at which time he came to Washington as a utility analyst with the public utilities branch of the old OPA. In 1944 he joined the Treasury Department, where he organized and became head of the public utilities division. He retired to private practice in 1952.

* * *

WHEN an effort is made to estimate roughly what the public likes and



ALFRED M. COOPER

dislikes about the utility service in any community, the formulation of any remedial program inevitably raises a lot of questions. In his article, beginning on page 95, ALFRED M. COOPER, professional author, now resident in Indio, California, has taken a double-check approach in the form of two surveys. One is a public attitude survey; the other is an employee performance survey. MR. COOPER, who has a background of personnel supervision for both publicly and privately owned utilities, considers these two inquiries as necessarily supplemental, forming the basis for any remedial program. He tells how they work and how to go about them.

OPINIONS expressed by thousands of citizens interviewed by a number of electric, gas, and telephone companies show clearly that people are influenced in their attitude toward the utility by five factors, in the following order of importance: (1) physical service delivery to the customer; (2) employee personal service; (3) rates; (4) publicity; and (5) appearance of the utility's buildings and equipment. These and other interesting suggestions for creating "barometers of good will" are developed in MR. COOPER'S article.

THE next number of this magazine will be out August 4th.

The Editors



it happens all the time!

Someone with a figuring problem is always borrowing her Remington Rand All-Electric Adding Machine... and no wonder! The simplified 10-key keyboard on this popular machine is so easy to operate that *everyone can use it—and does!* All electric action adds, subtracts and multiplies with ease and accuracy... gives printed proof on a two-color, easy-to-read tape that can be filed for reference.

Remington Rand

DIVISION OF SPERRY RAND CORPORATION



Coming IN THE NEXT ISSUE



THE LIFE CYCLE OF A REGULATORY COMMISSIONER

We have read from time to time in the past issues of this publication, articles by veteran federal and state public utility commissioners dealing with their experiences and problems as regulators. As a variety we present an article about the job of a state public utility commissioner, viewed from the eyes of a young man relatively new in the field. John P. Thompson, Denver lawyer and a graduate in economics at George Washington University (Washington, D. C.) in 1942, was appointed to the Colorado Public Utilities Commission less than a year ago. He is still only thirty-five years of age, but his article on the commissioner's job as he sees it will be refreshing to both older colleagues and regulated utility people. Approaching a complex and specialized field with a limited knowledge and experience, the author nevertheless realizes that his decisions, right or wrong, must be his own—decisions he can live with.

CAN GAS PRODUCTION BE REGULATED?

At this writing a number of bills are before the Congress of the United States, to change in varying degree the extent of jurisdiction which the U. S. Supreme Court has ruled that the Federal Power Commission should exercise over independent producers and gatherers of natural gas. The author of this article, William M. Wherry, well-known veteran New York attorney in utility practice, has examined the basic question of whether the attempted exemption of such producers from FPC control, in whole or in part, is practical or desirable and whether, on the other hand, a practical and desirable form of jurisdiction can be exercised by the FPC in the public interest.

VALUING UTILITIES VIA STOCK AND DEBT ESTIMATES

As a variation from the classical controversy over valuing public utility properties on the basis of either original cost depreciated or reproduction cost depreciated, this article outlines an interesting approach. The author, James W. Martin, director of the bureau of business research, college of commerce, University of Kentucky, states at the outset that the technique he outlines is for purposes of estimating market value or tax assessment—not for finding a rate base. Market values, of course, are required for pricing when title is transferred, for description of securities when property is pledged, for the determination of fair compensation on condemnation, for the estimation of the soundness of a property use program, and for the appraisal of property as a basis for taxation. Nevertheless, Dr. Martin has outlined a new and unique instrument of valuation which might also be of interest, at least for comparative purposes, to those concerned with valuation of utility property for rate making. For such usefulness as it may be worth, and in that light, it is presented along with a number of graphic charts outlining the mechanics of Dr. Martin's method for estimating value of public utility property through stock and debt analysis.



Also . . . Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.

*It Left You
Short
handed!*



When you used the old palm leaf fan you couldn't do any work except fan!

There's another operation that leaves you short handed when you turn out the work by hand — *rate bill analysis!*

Why tie up your staff and wait weeks to get analysis reports when you can get them in a matter of days via our "One Step Method".

We can run 200,000 to 300,000 bills a day through our Bill Frequency Analyzer Machine (exclusive with R & S), accuracy and speed are assured, cost is at least 50% lower and all the work is done in our office!

Send us a sample of your sales listing sheet, a copy of rate schedules and an estimate of number of customers billed on each rate, and your frequency table requirements. We'll give you an estimate of costs *without charge*. Compare these with your own, you'll find hand work just doesn't pay!

Recording & Statistical Corporation

100 Sixth Avenue

•

New York 13, N. Y.



YOUR
KEY
TO BETTER
FIGURES

Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

HENRY G. RITER
*President, National Association
of Manufacturers.*

"You cannot divorce business from risk, you can't guarantee customers."

PHILIP SPORN
*President, American Gas &
Electric Company.*

"As far ahead as we can see today, the preponderance of power generated on the AGE system will be in coal-burning plants."

THOMAS G. SPATES
Professor, Yale University.

"Most companies in the United States are making profits, but relatively few are maintaining high standards of personnel administration."

HAROLD W. DODDS
President, Princeton University.

"The large-scale basis of life today, with all its difficult problems of mass opinion and mass organization, is really an opportunity for greater self-realization rather than less."

HART BUCK
*Statistician, The Bank of
Toronto.*

"Canada . . . has needed no Point Four, no Colombo Plan, no United Nations, to get our oil and gas and iron ore developed. Nobody drafts plans for collecting other people's money in taxes for investment here. People beyond our borders have furthered our development with their own money."

*Excerpt from Clients' Service
Bulletin, published by The
American Appraisal
Company.*

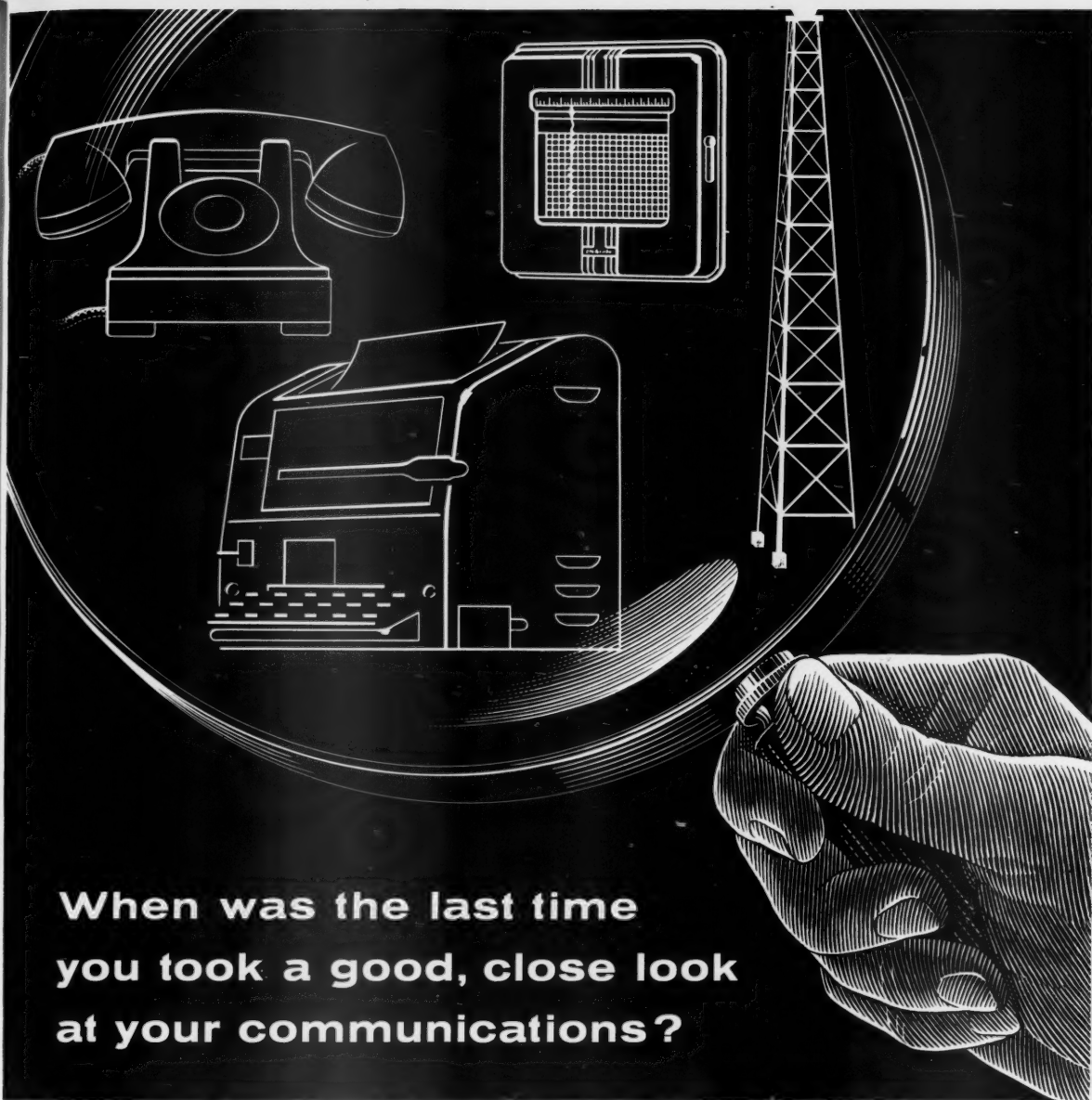
"New ideas are like new shoes—it is difficult to discard the old which are familiar and comfortable and to adjust ourselves to the new to which we are unaccustomed. Certainly new ideas should be adopted into our way of life only after thorough study has convinced us that the change to the exciting and unknown will result in great and reasonably certain benefit."

DANIEL WEBSTER
*(Excerpt from speech in U. S.
Senate, March 12, 1838.)*

"There are persons who constantly clamor. They complain of oppression, speculation, and pernicious influence of wealth. They cry out loudly against all banks and corporations, and a means by which small capitalists become united in order to produce important and beneficial results. They carry on mad hostility against all established institutions. They would choke the fountain of industry and dry all streams."

EDITORIAL STATEMENT
The Wall Street Journal.

"When a few plants are actually in operation—one is under construction and others are under consideration—much more will be known about the economics of atomic electric power, and it is not unrealistic to assume still greater progress toward competitive production. Certainly that should be possible if Congress further relaxes the present government curbs. The history of most major technological advances, at any rate, is that they become practical faster than expected, so long as people are permitted to work on them in a climate of freedom."



**When was the last time
you took a good, close look
at your communications?**

To keep in step with your changing business, your communications should be examined periodically. In that way, they never become outdated—always meet your exact needs at the lowest cost. If you have Bell System service, such studies are a continuing activity.

Bell System communications engineers will help you take a good, close look at your communications...at no cost to you! Their detailed study will help you get the most efficient use of your facilities...

whether they are long distance, mobile, teletypewriter, or telemetering and supervisory control.

A growing number of power companies are taking advantage of Bell System communications in meeting the demands of modern operation.

• • •

If you are interested in a detailed survey by Bell System communications engineers without charge, call your local Bell Telephone Representative now.

BELL TELEPHONE SYSTEM



TELEPHONE

TELETYPEWRITER

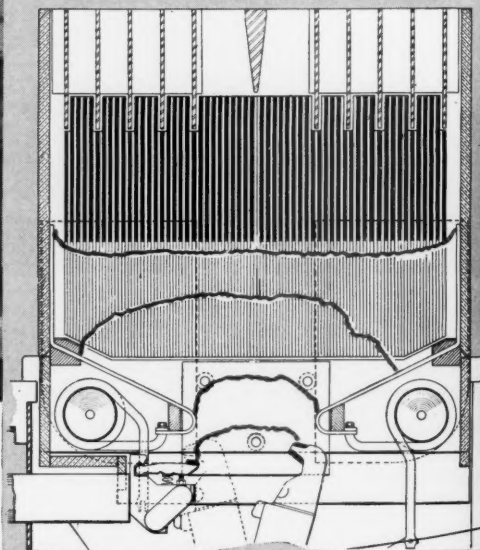
MOBILE RADIO

TELEMETERING AND REMOTE CONTROL CHANNELS

ALLIS-CHALMERS

Solve Capacitor

Progress in



Cross section of contact arrangement shows method of arc interruption.



ALLIS-

AIR MAGNETIC BREAKERS

Switching Problems

Provide this reliable means of capacitor switching as loads grow and capacitor usage increases

Allis-Chalmers air magnetic breakers are inherently suited to capacitor switching. High arc resistance plus highly efficient puffers combine to insure good interrupting performance over the full current range. Horizontal contact separation also aids breaker operation, since the natural thermal effect assists arc into arc chute.

GET INFORMATION

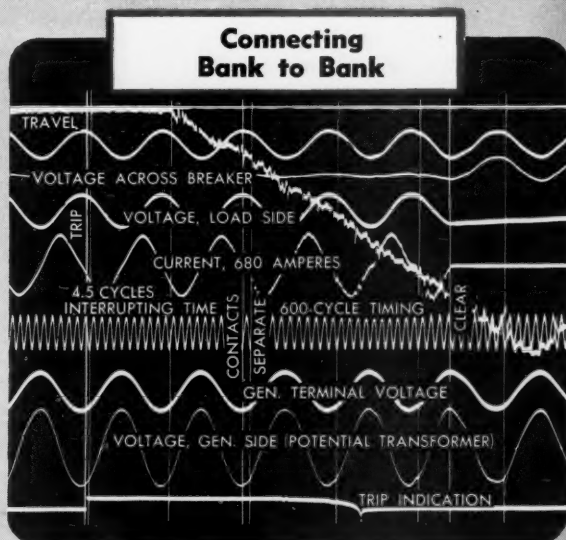
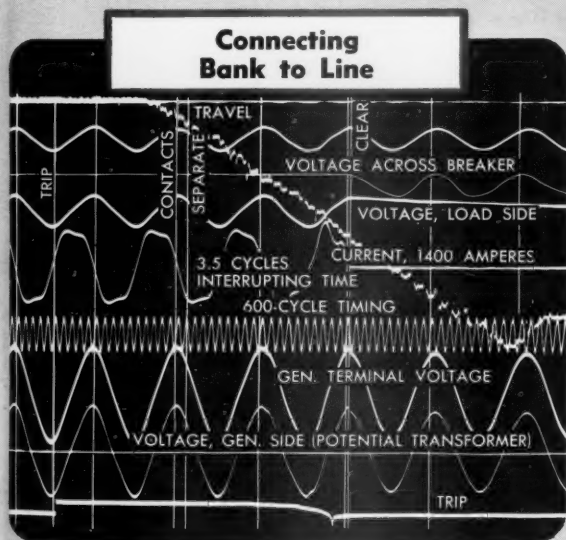
If you are having trouble now with capacitor switching or are planning to add capacitors, ask about Allis-Chalmers metal-clad switchgear utilizing *Ruptair* circuit breakers.

Call your nearby A-C office or write Allis-Chalmers, Milwaukee 1, Wisconsin.

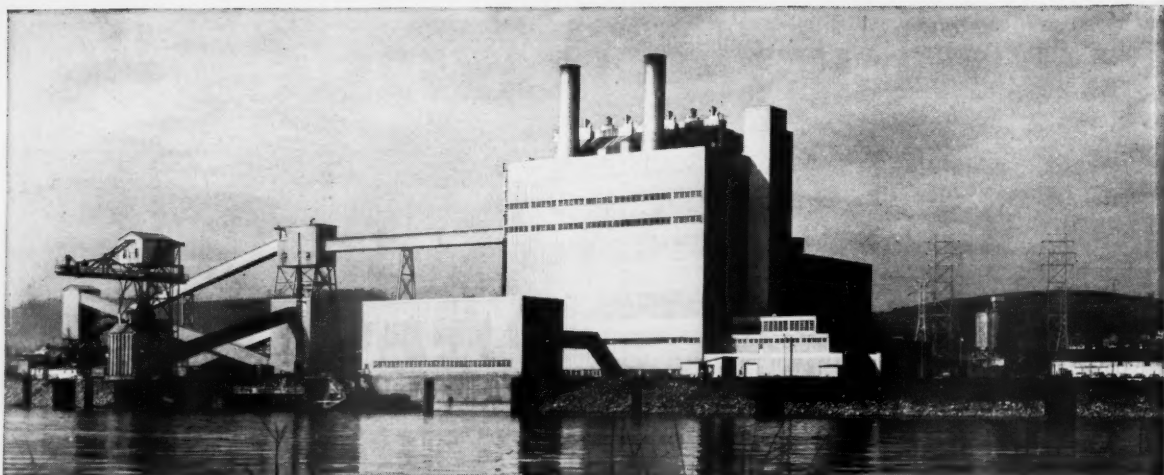
Ruptair is an Allis-Chalmers trademark.

A-4570

Tests Prove Fast Interruption With Minimum Voltage Disturbance

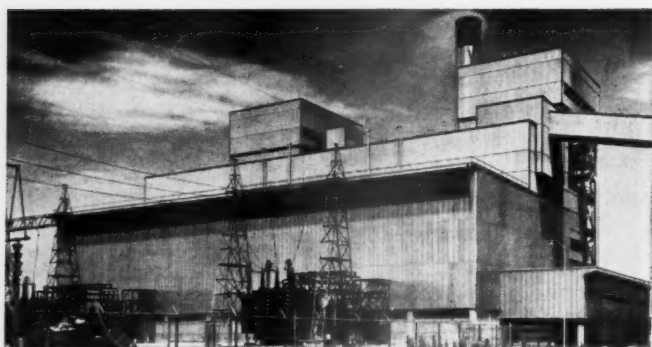


CHALMERS



Why fine new power plants everywhere have Q-Panel Walls

Builders of new power plants in all parts of the country have specified Q-Panel walls for the following very good reasons: 1. Q-Panels are permanent, dry and noncombustible, yet may be dismantled and re-erected elsewhere to keep pace with expansion programs. 2. Q-Panels are light in weight, thus reducing the cost of framing and foundations. 3. Q-Panels have high insulation value . . . superior to a 12" masonry wall. 4. Q-Panels are quickly installed because they are hung, not piled up. An acre of wall has been hung in 3 days. For more good reasons for using Q-Panel construction, use the coupon below and write for literature.



Robertson Q-Panels

H. H. Robertson Company

2400 FARMERS BANK BLDG. • PITTSBURGH 22, PA.

Offices in Principal Cities

Q-Panel walls grace the new Elrama Power Plant (above) near Pittsburgh. It was designed by Duquesne Light Company's Engineering and Construction Department. The Dravo Corporation was General Contractor.



Q-Panel walls (above) go up quickly in any weather because they are dry and hung in place, not piled up.

More than 32,000 sq. ft. of Q-Panels were used to enclose the impressive Hawthorn Steam Electric Station (left) of the Kansas City, Missouri, Power and Light Company. Ebasco Services, Inc., designed and built the plant.



Please send a free copy of your Q-Panel Catalog.

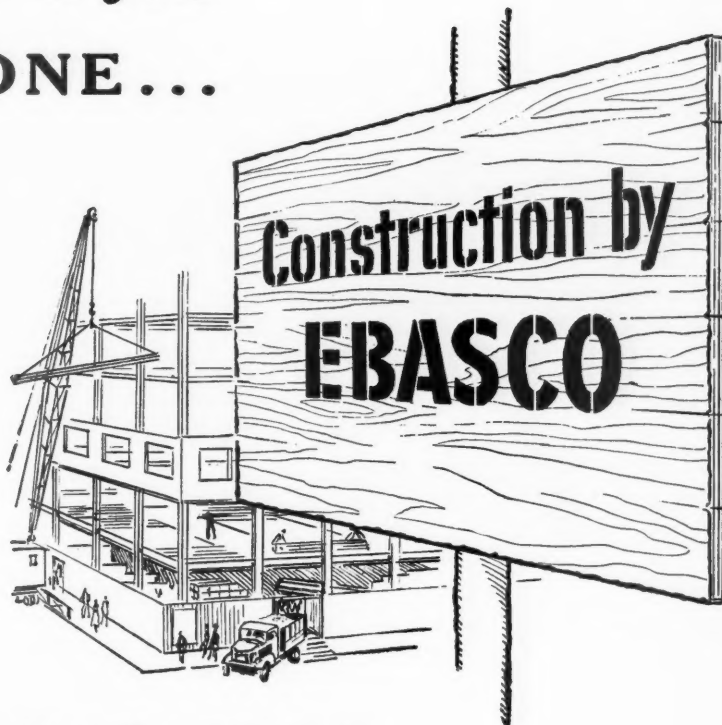
NAME _____

FIRM _____

ADDRESS _____

PUFI _____

sign of a job WELL DONE...



Whenever you see the Ebasco sign on a construction project, you can be certain that a team of specialists is at work helping to get the job done quickly and efficiently, using the most modern scientific engineering methods possible.

For, in Ebasco, you have a single organization equipped with the men and the experience necessary to handle an entire project—from initial planning to the designing boards, through construction to the actual operation of the plant.

We will be glad to send you our booklet "The Inside Story of Outside Help", describing the many services Ebasco makes available to you.

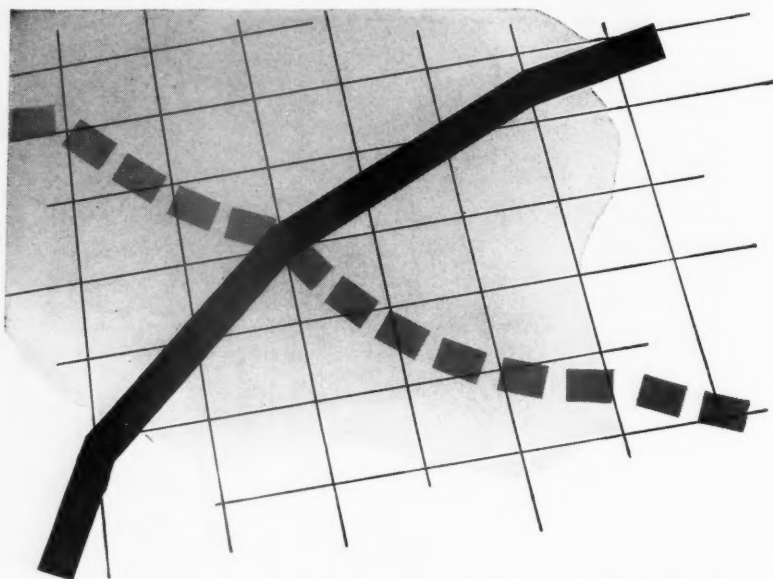
*Write: Ebasco Services Incorporated, Dept. W,
Two Rector Street, New York 6, N. Y.*



Appraisal • Budget • Business Studies • Consulting
Engineering • Design & Construction • Financial
Industrial Relations • Inspection & Expediting • In-
surance, Pensions & Safety • Purchasing • Rates &
Pricing • Research • Sales & Public Relations • Space
Planning • Systems & Methods • Tax • Traffic
Washington Office

*Ebasco Teamwork Gets Things Done
Anywhere in the World*

NEW YORK • CHICAGO • DALLAS • PORTLAND, ORE. • WASHINGTON, D. C.



A SOUND RATE STRUCTURE is the key to adequate earnings

Basic economic analyses affecting pricing policy
 Analysis of factors influencing rate design
 Studies involving rate base, cost of money, rate of return
 Preparation and presentation of expert testimony in rate proceedings
 Cost of service analyses
 Continuing research and reports on economic, commercial
 and engineering developments affecting rates
 Rate audits

Write for our booklet describing our services.

Address: Commonwealth Services Inc., Department E,
 20 Pine Street, New York 5, N. Y.

INVESTIGATIONS
 REPORTS
 FINANCING
 ACCOUNTING
 TAXES
 INSURANCE
 PENSIONS
 DEPRECIATION
 VALUATIONS
 CONSULTING & DESIGN ENGINEERING
 RATES
 PURCHASING
 INDUSTRIAL & PUBLIC RELATIONS
 ADVERTISING



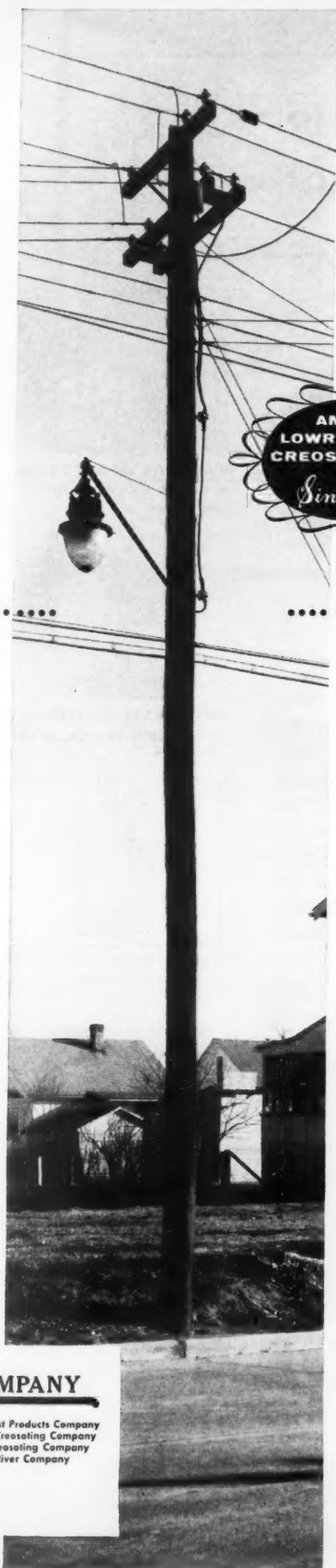
Commonwealth Services Inc.

COMMONWEALTH ASSOCIATES INC.

*20 Pine Street, New York 5, N.Y.
 Jackson, Michigan Washington, D.C.*

...Toxic Creosote

*Nature's Own Remedy
for Longer Lasting
Wood Products*



..... For over 50 years, creosote has reigned supreme as the number one wood preservative. That's because creosote, which is actually "dead oil of coal tar," contains over 100 ingredients that are highly toxic to fungi, borers and all natural enemies of wood. Creosote is not just a simple laboratory compound, but a highly complex substance formulized by "nature" millions of years ago.

But effective as creosote may be, it still has to be applied properly for maximum results. And that's where the American Creosoting Company enters the picture.

The American Creosoting Company invented and introduced the first practical commercial method of creosote treatment. That was over fifty years ago and they have been on the job ever since. Through continuous research and development, and the experience that comes only through years of service, Amcreco can guarantee you the best in treated wood products plus the service to go with it.

Amcreco's treatment plants are conveniently located for prompt domestic or export shipment. Write your nearby Amcreco sales office for estimates or quotations on your future supplies of treated poles, cross arms, conduit and other construction wood products.

AMERICAN CREOSOTING COMPANY

INCORPORATED

Shreveport Creosoting Company
Colonial Creosoting Company
Federal Creosoting Company
Indiana Creosoting Company



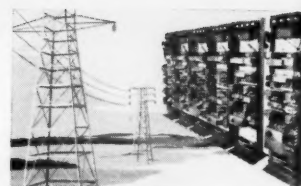
Georgia Forest Products Company
Gulf States Creosoting Company
Georgia Creosoting Company
Kettle River Company

LOUISVILLE 2, KENTUCKY

12 FIELD SALES OFFICES TO SERVE YOU

Communications planning requires the communications specialist — **MOTOROLA**

Whether you're just discovering all the advantages of a specialized communications system, or adding to your present one, you need expert professional counsel. With over 25 years of pioneering and experience *exclusively* in electronics, Motorola Communications Engineers are well qualified to help you solve all your communications problems. By producing such a great variety of basic equipment, we can integrate it to provide a custom-made communications system at production line prices. Unexcelled engineering skill, a creed of quality products and customer service stand back of the Motorola representative in your area. Let him show you how the various time-saving, profit-making communications tools will help you. Write, phone or wire today.



POWER LINE CARRIER—FM power line communications and aperiodic coupling units.



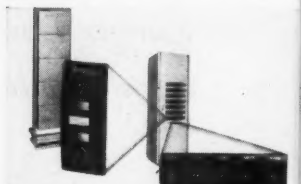
TWO-WAY MOBILE RADIO—vehicular and base station equipment for every application.



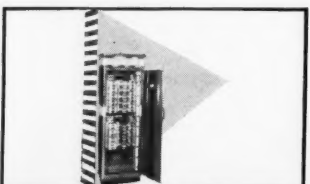
TWO-WAY PORTABLE RADIO—Handie-Talkie® portable radiophone and "Handie-Micro-Talkie" transmitter.



MICROWAVE SYSTEMS—multi-channel point-to-point message, control and video circuits.



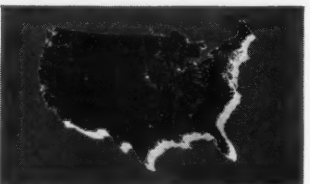
SUPERVISORY CONTROL—All-ton systems for remote control and indication.



VOICE FREQUENCY CARRIER—frequency-shift carrier for control and communications.



SYSTEMS ENGINEERING—Sound planning, complete surveys, practical integrated systems design.



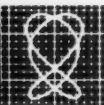
SERVICE—Installation, maintenance, parts, continuing customer service.



FINANCE—Purchase, conditional sale lease (with or without equity), with single contract installation and maintenance desired.

MOTOROLA 2-WAY RADIO

MOTOROLA COMMUNICATIONS & ELECTRONICS, INC.
A SUBSIDIARY OF MOTOROLA, INC.
4501 AUGUSTA BOULEVARD • CHICAGO 51, ILLINOIS
-OGERS MAJESTIC ELECTRONICS LTD. TORONTO CANADA





Motorola is the only complete supplier of communications and control equipment for the power utility industry — specialized engineering . . . product . . . customer service . . . parts . . . installation . . . maintenance . . . finance . . . lease.
"The best costs you less—specify Motorola."

UTILITIES

A.l.m.a.n.a.c.k

JULY-AUGUST

Thursday—21 Southeastern Electric Exchange, Personnel Administration Section, will hold meeting, Roanoke, Va. Aug. 11, 12. <i>Advance notice.</i>	Friday—22 Western Summer Radio-Television and Appliance Market ends 5-day western merchandising mart, San Francisco, Cal.	Saturday—23 American Institute of Electrical Engineers will hold Pacific general meeting, Butte, Mont. Aug. 15-19. <i>Advance notice.</i>	Sunday—24 Southeastern Gas Association will hold short course in gas technology, Raleigh, N. C. Aug. 15-Sept. 10. <i>Advance notice.</i>
Monday—25 Institute of Gas Technology begins summer session course on natural gas distribution, Chicago, Ill.	Tuesday—26 Stanford Research Institute will hold symposium on electronics in automatic production, San Francisco, Cal. Aug. 22, 23. <i>Advance notice.</i> 	Wednesday—27 American Bar Association will hold annual meeting, Philadelphia, Pa. Aug. 22-26. <i>Advance notice.</i>	Thursday—28 West Coast Electronic Manufacturers Association will hold show, San Francisco, Cal. Aug. 24-26. <i>Advance notice.</i>
Friday—29 American Gas Association holds board of directors meeting, Denver, Colo.	Saturday—30 Appalachian Gas Measurement Short Course will be held, Morgantown, W. Va. Aug. 29-31. <i>Advance notice.</i>	Sunday—31 Mid-West Gas Association will hold gas school and conference, Ames, Iowa. Sept. 7-9. <i>Advance notice.</i>	AUGUST Monday—1 National Shade Tree Conference begins, Santa Barbara, Cal.
Tuesday—2 Michigan Independent Telephone Association will hold annual convention, Grand Rapids, Mich. Sept. 8, 9. <i>Advance notice.</i>	Wednesday—3 American Trade Association executives end 3-day meeting, Mackinac Island, Mich. 	Thursday—4 New Jersey Gas Association will hold meeting, Spring Lake, N. J. Sept. 9. <i>Advance notice.</i>	Friday—5 Independent Natural Gas Association of America will hold annual meeting, Jasper National Park, Alberta, Canada. Sept. 11-13. <i>Advance notice.</i>



Courtesy, Niagara Mohawk Power Corporation

Power in the Vacation Uplands

Public Utilities

FORTNIGHTLY

VOL. 56, No. 2



JULY 21, 1955

The Puget Sound Utilities Council

This article presents an interesting set of facts on the combination of privately owned and publicly owned utilities in the Pacific Northwest. It is to some extent the outgrowth of the administration's new "partnership" policy for regional development of natural resources by combinations of local interest, both public and private, in co-operation with activities of the federal government.

By EDWARD R. LUCAS*

A WORKING organization of publicly and privately owned utilities is tackling, with all indications of success, one of the most critical problems of the power-hungry Pacific Northwest. That problem is the need for construction of additional power-generating facilities at the lowest possible cost to provide additional electric power to industrial and domestic users at the lowest possible price. If it proves successful, the organization may very well set an organizational pat-

tern for utilities in many other areas of the country.

The flexibility of the organization is indicated by the composition of its members, representing as they do three separate ideologies of utility ownership. The five utilities include one privately owned company, two municipally owned utilities, and two public utility districts.

An extremely important feature of the program is that it requires no help from the federal government for large projects. Consequently, the members will not be subject to the limitations on the use of

*Free-lance feature writer for business and industrial magazines. For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

that power that are imposed by federally owned installations. Federal assistance will presumably be confined almost entirely to nonpower installations, such as fish ladders and navigation and flood control on multipurpose projects.

The name of the organization is the Puget Sound Utilities Council, formed in April, 1954. The group includes all the major electric utilities in the Puget Sound-Cascade area. The utilities are Seattle City Light, Tacoma City Light, Puget Sound Power & Light, and the public utility districts of Snohomish and Chelan counties.

THE area served by these utilities has over 60 per cent of the population of the state of Washington. The five utilities supply power to over 500,000 customers, and operate 23 hydro- and steam-electric plants, with a total peaking capacity of 1,600,000 kilowatts. They shared a peak load of 1,600,000 kilowatts in 1954. They have over one-half billion dollars in assets and a gross revenue of \$64,000,000.

The organization is literally a voluntary association. It has no independent legal or corporate existence and may be dissolved at any time by mutual agreement of the members. Nevertheless, there are several persuasive reasons why the members share an almost evangelistic desire to make it succeed.

"There is one basic objective that binds us all together regardless of our several considerable differences," explains L. E. Karrer, executive vice president of Puget Sound Power & Light. "That is our desire to provide better service at continuing low costs to our customers, and to be able to meet the rapidly expanding needs of our area as they arise. Only by meeting those

needs promptly and with assurance can we expect to attract the new industries and residents that the region can support. That is the main objective which brought us together in the first place and which we expect will make us an effectively operating group.

"Another important purpose is that we will be able to build big, cheap power projects through private financing with no strings attached as to their use. From our company's viewpoint, certainly, this has simply got to work or else we'll have the government coming in and taking over the future hydroelectric development of the region. We have simply got to get this show on the road."

SPECIFICALLY, the Puget Sound Utilities Council consists of eleven members: two from each utility plus the secretary, who is a consulting engineer. The group meets twice a month, and all decisions must be unanimous. Chairmanship of the group rotates annually among the five utilities, the present chairman being Dr. Paul J. Raver, superintendent of Seattle City Light. Between meetings, the business of the group is carried on by the secretary.

"Unlike the members of our Northwest Power Pool, who are technical men, the members of the Puget Sound Utilities Council are all top representatives of management," points out Jack D. Stevens, the group's consulting engineer and secretary. "That is important as it means that they have authority to commit their companies to specific decisions and so make the group an effective body."

One of the first acts of the council was to agree on its objectives, laid out in its "Declaration of Objectives." This un-

THE PUGET SOUND UTILITIES COUNCIL

usual document notes first the need and then makes this unqualified commitment:

These utilities agree it is their responsibility to take care of the total electric power needs of the Puget Sound-Cascade area for all purposes—including its industrial growth—and they intend to do so.

Another important early step is to survey and form an integrated plan of development for the region as a whole. The council's service area power needs for the next ten years will require an additional 1,700,000 kilowatts of new electric power, it is estimated, involving capital outlays considerably in excess of half a billion dollars. It is necessary that the new power be made available promptly and economically, and that the cheapest power sites be developed first.

ACCORDINGLY, the members put up an initial \$40,000 for a power analysis. Among other things, the analysis will recommend projects for engineering investigation and construction. Contractual arrangements and economic opportunities will also receive attention. Some new projects will be developed independently while others will be joint ventures. Under either procedure, the utility that owns the

site will do all the financing and building. But the crucial point is that in cases where the constructing utility cannot use all the plant output, the other four utilities will sign contracts guaranteeing to buy specific amounts of power every year. This guarantees a market for the power and makes it feasible to finance a large project at once.

The process of interutility contracts is being put into operation on the council's number one project, the proposed Rocky Reach dam on the Columbia river. Present indications are that the project will be carried through according to the council's realistic and thoroughly practical plans.

Of possibly greater long-range importance, the council has taken steps looking toward possible atomic energy installations. It has already agreed to earmark \$100,000 a year for nuclear power plant study, a preliminary condition to receiving from the Atomic Energy Commission a study contract.

"In addition to new hydro projects, the council is considering the long-range potentials of headwater storage developments, electric energy development from atomic processes, steam-electric generation, and the purchase of power and energy from other regions," says Mr. Stevens. "Eight new projects and two



Q "Good public relations for the power industry locally and for the Puget Sound-Cascade region as a whole, are an objective that the [Puget Sound Utilities] council gives high priority. The very nature of the organization has virtually assured a unanimously enthusiastic reception by local newspapers in an area where public versus private ownership has been a sharply divisive issue. The council has also attracted favorable notice from some national publications, such as BUSINESS WEEK."

PUBLIC UTILITIES FORTNIGHTLY

plant additions now under consideration by the council utilities would add 2,800,000 kilowatts of installed capacity, 1,700,000 kilowatts of prime power, and 11,800,000 acre-feet of usable power storage. Since it takes from six to eight years for planning and constructing a large hydroelectric project, action is needed now, in order to provide power supplies for the future."

THE economic thinking behind the utilities council and the basic simplicity and workability of the solutions they have worked out, are explained in detail by Mr. Karrer.

"The main economic obstacle for an individual utility that wants to develop new power at the lowest possible cost, is the fact that the projects that generate power most cheaply are almost always the larger installations. That is true for steam as well as hydrogenerating plants. To build such a low-cost installation therefore, a utility would find itself with new generating capacity on its hands greatly in excess of its immediate needs. Since it would not be able to sell most of the new power it produced, the utility would not be able to pay the cost of the installation as promptly as required by private investors.

"An example here would be the position in which we at Puget Power would find ourselves if we attempted to undertake alone construction of a project like Rocky Reach. Our average annual increase in power sales in recent years, we find, is approximately 50,000 kilowatts. With the completion of Rocky Reach, we would find ourselves with an additional generating capacity of at least 600,000 kilowatts. At our present rate of increase

it would take us twelve years before we would be selling the full output of the new installation.

"IF the cost of the dam at its full generating capacity is assumed to be no more than the lowest possible figure of \$200,000,000, the dimensions of the financing problem become apparent. At least \$150,000,000 of that amount would have to be spent before a single kilowatt-hour could be sold. No private investor in the country would lend us that amount on those conditions. Financing would have been even more impossible for the Chelan PUD, which under our plan will actually be building the project, since their power sales are increasing at the rate of only 4,000 kilowatts per year. At that rate, it would take them 150 years before they would be using the dam's full capacity.

"Now, what happens when our utilities council steps into the picture? The utility that is building and financing the dam signs contracts with the other four member utilities, the other utilities agreeing to buy specified amounts of power from the new dam. With an installation such as Rocky Reach, the five utilities together would be able to sell the full 600,000-kilowatt capacity of the dam within three years after its construction. On that basis, bonds can be sold to private investors without difficulty, to build the dam.

"In this way, the power needs of the region can be met as they arise. With an integrated program of planning, by the time the power from our first project has been absorbed, another installation would be ready for operation. It is entirely possible that by the time the cheap hydroelectric sites have been utilized, atomic

THE PUGET SOUND UTILITIES COUNCIL



Pacific Northwest Regional Areas

"I*n the Pacific Northwest . . . there are three clearly defined major economic regions. They are the Puget Sound-Cascade region with the Seattle-Tacoma area at its hub; the lower Columbia valley region with Portland at its center; and the Inland Empire, which takes in much of eastern Washington, western Montana, and part of Idaho and has Spokane at its center. Industries within each of these regions compete with industries in the other regions vigorously and not necessarily amicably. An attempt to reconcile those differences in the utilities council by including utilities from those regions, would only result in frustrating the work of the council without settling the differences, it is felt."*

energy will be ready to provide more low-cost power for our expanding economy.

"S*ize has absolutely nothing to do with the financial feasibility of a project. Private financing can be found for any project including a Grand Coulee as long as sufficient markets for its power can be established soon enough to retire the bonds on time. We believe that in this council we have found the means to provide markets for all future electric generation projects in our area that will also guarantee their financial feasibility."*

T*HE ability of the utilities council to implement its plans with action, was demonstrated last January 13th when it formally named Rocky Reach as its first joint project. In so doing, the other four utilities agreed that they wished to purchase Rocky Reach power from the Chelan PUD "in amounts of peaking and energy that each can use in its load, provided Rocky Reach power is competitive with other sources of power supply available to each." Revenue bonds based on these contracts would then be used to finance the project.*

PUBLIC UTILITIES FORTNIGHTLY

It is expected that the action of the council will make possible early construction of the dam. A preliminary permit has already been granted by the Federal Power Commission, and preliminary studies to prove the feasibility of the project should be completed by summer of this year. The district expects to move ahead with actual construction next year so that the dam should be completed in 1960.

The only federal funds that might be used on the project are a comparatively meager \$10,000,000 that has been suggested by the President to Congress. If appropriated this could be spent for fish ways and other nonpower features, and construction of the project will not depend on the appropriation.

ANOTHER necessary preliminary for this and all other council projects was completed during World War II with formation of the Northwest Power Pool. Consequently, the physical facilities making possible the interchange of energy were already in existence.

There is at least one other important prerequisite to the success of a project such as this, the participating utilities believe. That is that the participating utilities be limited to a natural economic region with a community of mutual economic interests. Otherwise, they feel, they would not be able to get together and make the unanimous decisions which their organization requires.

In the Pacific Northwest, for example, there are three clearly defined major economic regions. They are the Puget Sound-Cascade region with the Seattle-Tacoma area at its hub; the lower Columbia valley region with Portland at its center; and the Inland Empire, which takes in much

of eastern Washington, western Montana, and part of Idaho and has Spokane at its center. Industries within each of these regions compete with industries in the other regions vigorously and not necessarily amicably. An attempt to reconcile those differences in the utilities council by including utilities from those regions, would only result in frustrating the work of the council without settling the differences, it is felt.

THERE are special advantages which are anticipated for the region from its presumed ability to attract more eastern capital. Dr. Paul J. Raver lists the two most important as more favorable financing for the projects and therefore lower-cost power; and an influx of new industry to the area. Dr. Raver was for many years head of the Bonneville Power Administration. He organized the utilities council and is its first chairman.

"We are interested in eastern capital from two points of view," Dr. Raver says. "We are interested in it from the point of view of aiding or helping our financial position in the eastern market. That means lower-cost capital. If we can convince them that our plans are integrated and co-ordinated and that we are moving along together, it gives them greater confidence in placing risk capital out in this area. . . . Going right along with it is the idea that having come to conclusions about a program for additional power supply . . . we will be able to attract industries out here also, and do a good job for the development of our region. Basically, that is all there is to it."

Good public relations for the power industry locally and for the Puget Sound-Cascade region as a whole, are an objec-

THE PUGET SOUND UTILITIES COUNCIL

tive that the council gives high priority. The very nature of the organization has virtually assured a unanimously enthusiastic reception by local newspapers in an area where public *versus* private ownership has been a sharply divisive issue. The council has also attracted favorable notice from some national publications, such as *Business Week*.

THE utilities council has been especially sensitive to the unfavorable attention which some Pacific Northwest utilities have attracted by various controversies within the industry and to the publicity which power shortages in the area have received in recent years. Besides setting up an organization which will eliminate such shortages, the council intends to let eastern financial interests in particular know that the era of shortages is coming to an end and that the utilities of the region are working together amiably.

With this in view, the council prepared a most unusual advertisement which it placed with *The Wall Street Journal* and *New York Times*, among other publications.

Beneath a map of the Puget Sound-Cascade region and a picture of a hydro-electric dam, the ad copy stated:

There's a new era in electric power in the Puget Sound-Cascade area.
... Five major utilities, public and

private, have jointly assumed responsibility to supply the total electric power needs, both present and future, of this area. These utilities now serve over half a million customers. Their combined 1953 revenue was almost \$64,000,000 and their assets aggregate in excess of \$500,000,000. With their program of long-range mutual co-operation these financially sound, thoroughly experienced utilities bring complete stability to the area's power situation. Through joint planning, co-ordinated development of power resources, and maximum use of their facilities, both present and future electric power requirements will be provided at the lowest possible cost to the consumer. The exceptional and diversified potential of this rich area is now assured of a constant, year-round power supply and of an expanding power program to meet every need of its industries, farms, and homes.

THERE are naturally broader implications of possibly national significance in the organization which the five utilities have set up, but of these the participants refuse to speculate. Their concern at present is the eminently practical one of converting a program of unusually brilliant promise into the stuff of solid and tangible achievement. There is every indication that they will be able to do so.

“EVERY businessman and investor should seek objectively to evaluate the attempt of the Eisenhower administration and the 83rd Congress to retreat from a trend toward government ownership of economic assets and resources, and to restore, to a greater degree, the private enterprise, or competitive system.”

—M. S. RUKEYSER,
Columnist.



Uncle Sam—Biggest Utility Customer

This article contains a description of the special organization with which public utilities must deal when they serve the federal government. Needless to say, the federal government is becoming year by year a bigger and bigger customer of all forms of utility service.

By DAVID A. KOSH*

Introduction

A SMALL group of people, organized on July 1, 1944, under the imposing title of "Public Utilities Division of the Procurement Division of the United States Treasury Department"—a group never exceeding fifteen in number, and averaging closer to ten—has saved the executive branch of the federal government in actual out-of-pocket cost of utility services, a total conservatively estimated at \$15,000,000. This amounts to over \$20 saved per \$1 spent on the entire operations of this group.

*Public utility consultant, Washington, D. C. For additional personal note, see "Pages with the Editors."

The task of this group has been to represent the government as a *user* of utility services—electricity, gas, steam, and communications by telephone and telegraph, both domestic and international. The purpose of this group has been to obtain efficient utility services at the lowest reasonable price. In achieving that purpose it recommended the use of more efficient and economical equipment (such as the joint use of telephone switchboards by several agencies), negotiated rates designed to reflect the characteristics of the particular government load, and, when necessary, participated in formal rate proceedings before various state and federal

UNCLE SAM—BIGGEST UTILITY CUSTOMER

regulatory commissions. This, then, was its general purpose and this, in general, is how that purpose was achieved. The remainder of this article will be devoted to a brief description and analysis of why and how this group was organized, how its policies were developed, and how those policies were implemented.

HOWEVER, before proceeding with such an exposition, it might be well to make abundantly clear one basic policy which motivated the entire philosophy and operation of this group. It had no regulatory powers, and asserted none; it represented the government as a *user* of utility services. As such it never claimed that the government was entitled to special rates which any other user, requiring the same type of service, would not be entitled to under established and sound principles of utility rate making and regulation. True, the division did on several occasions ask for specially designed rates, but the bases for these rates were the use characteristics of the load, and *not* because the user happened to be the government. To the writer's best knowledge, this group never took a position, different from that which a private user of the same type of service could have maintained.¹

The public utilities division did not consider itself as a nation-wide public defender in utility rate matters. While it is undoubtedly true that utility customers, in general, benefited from the government's intervention in general rate increase cases, nevertheless *the determining factor which motivated and controlled the activities of this group was to obtain efficient utility services for the use of the federal government at the minimum reasonable price.*

Prior Status of Utility Procurement

PRIOR to July 1, 1944, there was no unit in the government whose responsibility it was to obtain efficient and economical utility services *on a government-wide basis*. Individual agencies, looking solely to their own individual needs, did the best they could in a general nontechnical sort of way. The ordering and paying for service was usually in the hands of people to whom utility rate making was a complete mystery. The advantages of joint use of facilities, such as telephone switchboards and leased teletype circuits, were either not appreciated, or deliberately ignored because of the fear that joint use of facilities might result in somebody's losing a job. And, of course, such fears were well-founded, since one of the major economies of joint use of facilities was the reduction in personnel.

Of course there were exceptions to the above state of affairs, some of them notable. The then War and Navy departments did have technical people watching over their *individual* needs for, and uses of, utility services, but here too it was a question of an *individual* agency's needs. As a result of the war, there were established in the then OEM, a single telephone switchboard to serve all civilian "war" agencies, as well as a nation-wide, leased teletype system to serve those same agencies. There were two telephone engineers in the procurement division of the Treasury Department who did review telephone requirements of various agencies and made many worth-while recommendations. But those, and possibly other isolated situations, did not, even in the aggregate, amount to a government-wide supervision of the use and procurement of utility services.

PUBLIC UTILITIES FORTNIGHTLY

There was one instance of a co-ordinated effort in the direction of government-wide purchasing of power, prior to 1944, but that also was a special, one-time situation. This was a contract, entered into in 1935, between the Consolidated Edison Company of New York (and some of its predecessor components) and the federal government for electric service for all federal agencies in New York.²

EVEN though this haphazard procurement situation was of long standing (and perhaps because of that), it required some startling event to push someone into action. The special event turned out to be the rate proceeding before the District of Columbia commission, involving the rates of the Potomac Electric Power Company. The amounts involved were sizable and because of the fact that the federal government provided about 25 per cent of the revenue of Pepco, the government's financial interest in the outcome of the case was correspondingly sizable. As a result, the procurement division of the Treasury Department intervened in the proceedings, as a user.

It is fair to state that the insight obtained by the Treasury Department representatives in that case, in the workings of regulation, and the processes whereby

utility rates are set, gave major impetus to the decision of the Treasury Department to set up an organization to represent the government as a user of utility services. This, plus the work of the procurement division telephone engineers previously referred to, suggested that this organization concern itself not only with utility rates, but also with utility service requirements.

On July 1, 1944, the public utility division was organized, and consisted of the writer as chief, an engineer, and a typist. Such was the modest beginning of an organization which in the first ten years of its existence saved the government over \$15,000,000 at a total *operating* cost of less than 5 per cent of that amount.

THE legal authority underlying the organization and its work begins with Executive Order No. 6166, promulgated on June 10, 1933, which set up a procurement division in the Treasury Department with the function, among others, of the "... determination of policies and methods of procurement ...". On June 1, 1937, the director of procurement issued Director's Order No. 73 (which order was approved by both the Secretary of the Treasury and the President). This order provided, among other things, that the

7

Q "STARTING in 1944 on a very modest scale, but aided by a top management, which helped but did not meddle, the public utility branch saved the government over \$15,000,000 or over \$20 for each \$1 spent. It did so by exercising a nation-wide review and general supervision over the government's procurement of utility services. In so doing it entered into about every phase of utility operation and regulation. It negotiated contracts, designed special rates, designed communications systems, and participated in all sorts of utility rate cases . . ."

UNCLE SAM—BIGGEST UTILITY CUSTOMER

procurement division was to undertake the procurement of certain supplies and services, to the extent it deemed such action necessary in the interest of efficiency and economy of government operations.

The operations of the public utilities division were based on the above authority until the passage of the "Federal Property Administrative Services Act of 1949"—Public Law 152, 81st Congress—approved June 30, 1949, creating the General Services Administration (GSA). In the "Declaration of Policy" this law stated that

It is the intent of the Congress in enacting this legislation to provide for the government an economical and efficient system for:

(a) the procurement and supply of personal property and nonpersonal services, including . . . management of public utility services . . . and representation before federal and state regulatory bodies . . .

UNDER this act the functions of what had by then become known as the public utilities branch of the Bureau of Federal Supply of the Treasury Department, were transferred to the GSA.

In § 201 (a) of the act it is provided that

The Administrator shall in respect of executive agencies, and to the extent that he determines that so doing is advantageous to the government in terms of economy, efficiency, or service, and with regard to the program activities of the agencies concerned—(1) prescribe policies and methods of procurement and supply of personal property and

nonpersonal services, including . . . management of public utility services . . .

and,

. . . (4) with respect to transportation, and other public utility services for the use of executive agencies, represent such agencies in negotiations with carriers and other public utilities and in proceedings involving carriers or other public utilities before federal and state regulatory bodies.

The act also permitted GSA to enter into long-term utility contracts not exceeding ten years, and gave the Secretary of Defense the right, subject to the President's disapproval, to exempt the Department of Defense from the actions of GSA under the above quoted (and other) provisions.³

Methods Used and Results Achieved

TOP officials of the Bureau of Federal Supply, as well as their superiors, realized from the beginning that this work was of a highly specialized nature. Accordingly, they largely left both the policy and the operating direction to the chief of the public utility branch. The setting of broad policies, as well as both short-run and long-term objectives, were formulated by the branch itself, and received only the broadest kind of review. The number of employees was limited only by the availability of competent people, and the branch regularly spent less than the sum appropriated for it. For the most part, the branch knew of no red tape; it made its own contacts with utilities and others, carried on its own negotiations, and except for periodic progress reports, called



Saving Uncle Sam's Consumer Dollars

"...it [the public utility branch] followed steadfastly one basic philosophy—it represented the government as a USER of utility services, and as such it asked no favors; only its just deserts as a user of service. It successfully resisted pressures to get into rate cases where the government had only a minor interest, and equally successfully resisted pressure for it to stay out of cases where the government did have a significant interest."

on top agency officials only when, in the opinion of the branch, these could help. Next to the high degree of competence of the staff of the branch, this delegation of authority and freedom from undue interference was the single most important factor contributing to the success of the branch.⁴

If an unlimited number of people had been available, the branch could have reviewed every electric and gas rate on which any government agency took service any place in the United States. Every telephone installation could have been analyzed to see whether a different type of service, such as a joint PBX, was more economical. All government telegraph traffic could conceivably have been analyzed to determine what method or meth-

ods of handling would provide the best and most economical service. The tariffs and earnings of every utility could have been analyzed to determine whether earnings were excessive and/or whether rate schedules used by government agencies were properly designed and in balance with the rest of the tariff.

ALL these things *could* conceivably have been done, but it is at least doubtful whether the cost of such an effort would have been covered by the economies achieved. In any event, personnel was *not* available for such an effort.

It soon became apparent that competent people were hard to get, and quite impossible in the numbers required to do the entire job. The normal scarcity of well-

UNCLE SAM—BIGGEST UTILITY CUSTOMER

trained people in this field was accentuated by the relatively low salaries available for government positions. The problem then became one of getting as many capable people as possible, and then doing those parts of the job that would be most productive of greater economy or efficiency in the use of utility services. Thus the program of the branch was dictated by several considerations, and the problem became, "Given the number of people available, how can their particular talents be used so as to achieve a maximum of economy in the government's procurement and use⁹ of utility services?"

This problem was a recurring one. Over and over again the question arose, "Of these X rate cases pending, in which do we have the biggest stake, and the greatest chance of doing some good?" Or having decided on a particular rate case, a decision had to be made as to what issues to cover. It must not be forgotten that at no time could the branch intervene except in a very small number of the then going rate cases, and very rarely did it have enough personnel to concentrate on all of the issues in any given rate case.

IT is doubtful whether even by now, eleven years after the organization of the branch, it has had the opportunity of reviewing every sizable government telephone load to determine the extent to which economies could be achieved by consolidation.

Thus the program of the branch and its implementation became a practical compromise of doing the best one could with what one had.

The branch never had more than fifteen people, including stenographic and clerical help. It also had the wholehearted assist-

ance of the legal staff of the bureau, and the services as required, of several (but no more than one at a time) very capable attorneys.

What the branch did can perhaps best be told by outlining some of the typical projects, and some of the rather unusual ones.

Rate Cases

IT might be well to mention participation in rate cases first, not because that constituted the major part of the work—it did not. It at no time occupied more than half of the staff, and usually considerably less. But it is the most publicized work, and it is high time to dispel the erroneous impression that it was *all* the branch did.

The branch participated in all sorts of rate cases: gas, electric, telephone, and telegraph. It presented testimony, usually through its chief, in all of these cases, and conducted rather extensive cross-examination on the issues with which it concerned itself. The extent of participation depended on the type of case.

In the electric cases, it usually presented rate of return testimony, primarily because fair rate of return had become, around 1945-46, the major issue in general rate cases, and because such testimony did not involve the voluminous, tedious, time-consuming, costly work such as was involved, for example, in valuation or depreciation studies. Cash working capital, a sharp, narrow issue, in which the facts could be readily marshaled and differences in principle clearly highlighted, was another subject to which attention was given. In certain cases, such as that of Potomac Electric, where the government used such a large portion of the company's output, cost allocation and the de-

PUBLIC UTILITIES FORTNIGHTLY

sign of the rate schedules were subjects of considerable attention. The branch also participated quite actively in both the formal and informal phases of the development of the recently abandoned sliding scale, under various forms of which the rates and earnings of Pepco were regulated.

THE branch participated in quite a few of the larger Bell telephone cases, and in those concentrated on rate of return, working capital, and the license contract fee issues. The last two issues soon became moot to all intents and purposes, as after the first round of cases, regulatory commissions sharply cut back or completely rejected any allowance for cash working capital, and the telephone companies reduced the license contract fee to noncontroversial levels. As a result, rate of return was the sole issue in the later telephone cases. In most of these it was the most important issue, as for example in New York, where practically the entire result depended on rate of return.

The few telegraph cases before the Federal Communications Commission were unique proceedings. One series of cases involved the discount which the federal government had been receiving on its land-line messages. The defense of that discount was based on the characteristics

of the government's traffic. The government's case rested entirely on the theory that in view of the longer-length, longer-haul government telegrams, they were more profitable to the carrier even at the discounted rate, than the average commercial wire at the full rate. This approach was in accord with the basic philosophy adopted by the branch and faithfully followed throughout—that it sought no special rates for the government, to which it was not entitled as a *user*. The second series of telegraph cases involved international telegraph rates, and again the basis of the government's case was the character of its load.

The few gas cases followed the pattern of the electric cases.

So much for rate cases, not because they were not successful in saving the government a lot of money, but because they were only one of many successful approaches used by the branch in achieving its purpose.

Rate Negotiation

NEGOTIATING special rates was another useful method when the circumstances warranted it. Several examples come to mind. Commonwealth Edison had, prior to 1947, a rather complicated tariff, containing many obsolete rates,



"THE branch participated in quite a few of the larger Bell telephone cases, and in those concentrated on rate of return, working capital, and the license contract fee issues. The last two issues soon became moot to all intents and purposes, as after the first round of cases, regulatory commissions sharply cut back or completely rejected any allowance for cash working capital, and the telephone companies reduced the license contract fee to noncontroversial levels."

UNCLE SAM—BIGGEST UTILITY CUSTOMER

many of which served but a few customers. The government was served on some sixteen different schedules, with the consequent high cost to the company of billing and accounting. The company wanted to simplify its tariff, and asked the co-operation of the branch. The outcome was a single rate for all of the government's use. The government saved some \$28,000 per year in the cost of electricity; it may be assumed that the company also gained as a result of the tariff simplification. The whole approach was cordial, co-operative, and carried out on a high professional plane.

AN instance, neither as cordial nor as co-operative, involved a utility whose rates to a Federal Housing development seemed too high. The utility refused even to discuss the matter, and accepted an invitation of its regulatory commission to a 3-way conference with stated and obvious reluctance, and equally obvious unwillingness to do anything. It was only after the branch representative produced figures demonstrating not only the excessive rate for the development, but also the equally excessive earnings of the company, and suggested that he was ready to present these as exhibits in a formal application seeking a general rate reduction, that consideration of the facts really began. In a relatively short time, the housing rates were adjusted and the matter ended. This instance remains in the writer's mind, even though it happened some eight years ago, because it is about the only instance where a utility was unwilling to listen and appraise a proposal on its merits. This is not to imply that every suggestion the branch made was accepted; several were rejected and many

modified. But in all cases, with the above exception, suggestions were considered, analyzed, and subsequent action based on the merits of the case.

Communications Engineering

THE technical aspects of the branch's operation, as contrasted with its rate and regulatory activities, centered on communications, both telephone and telegraph.

It is important to keep this in mind in connection with communications. *Each* of several agencies may be handling *its own* communications in the most efficient and economical manner possible, *considering that agency's traffic only*. Nevertheless, it is frequently possible to devise means for handling the *total traffic* more efficiently, and at a lower total cost, than was previously the case.

Thousands upon thousands of dollars were saved, and service vastly improved as a result of the PBX consolidation program of the branch. City after city was reviewed; government locations were spotted, and their loads and telephone equipment analyzed to determine whether one or more consolidated switchboards would prove profitable. In very many cases they did, and such consolidations were made. The savings on individual consolidations ran from a few hundred dollars per year to over \$40,000 per year. Only when it is realized that these savings continue year after year, can the value of this work of the branch be appreciated fully.

STUDIES of telegraph traffic, its volume, and distribution, made it possible to recommend the economical use of leased teletype lines, either on a point-to-point



Utility Jobs for the Government

"THERE were many miscellaneous jobs undertaken by the branch. It provided a witness to the Department of Justice in a suit wherein the city of Los Angeles sued the U. S. government for an alleged \$54,000 underpayment for electricity furnished to an enemy alien relocation camp in California. The branch assisted in the sale of a surplus transmission line to the New York State Power Authority. The branch arbitrated a dispute between a utility and a government agency arising from a faulty meter hook-up. It even helped the Air Force negotiate a contract with the Tennessee Valley Authority (!) for a huge wind-tunnel load."

basis, or in more elaborate network systems.

Where such networks existed, it was often possible to divert traffic of smaller agencies to such networks, in the interest of efficiency and economy. The wartime OEM teletype system had, with the passage of time, been converted into a civilian agency network, handling a large volume of traffic at very low cost, and it was in large measure to this system that the traffic of small agencies was economically diverted.

IN all of these communications studies, the help of the utilities involved was wholehearted and invaluable. Data were furnished, the comment of technical people made available, and the necessary equipment changes made quickly. In fact, the aid of the company was often enlisted

by the branch in "selling" a desirable change to a reluctant government agency.

Miscellaneous Projects

THERE were many miscellaneous jobs undertaken by the branch. It provided a witness to the Department of Justice in a suit wherein the city of Los Angeles sued the U. S. government for an alleged \$54,000 underpayment for electricity furnished to an enemy alien relocation camp in California. The branch assisted in the sale of a surplus transmission line to the New York State Power Authority. The branch arbitrated a dispute between a utility and a government agency arising from a faulty meter hook-up. It even helped the Air Force negotiate a contract with the Tennessee Valley Authority (!) for a huge wind-tunnel load.

UNCLE SAM—BIGGEST UTILITY CUSTOMER

But of all these special jobs, the one which is a matter of much personal satisfaction to the writer is the interdepartmental dial telephone system, which was cut over in Washington, D. C., on February 2, 1948. It is of special gratification, not because the writer did much of the technical work; the fact is he did relatively little of it. But he did goad others into doing it, and did so by overriding objections that 1946 was a poor year in which to redesign the old manual board through which various agencies in Washington called each other. "Wait 'til conditions become normal" was the universal injunction.

FEARING that normality was a long way off, and that, in the meantime, savings could be achieved, the insistence on doing something was continued. Preliminary layouts were prepared by branch engineers, and these seemed most promising.

Realizing that the branch was serious, the local telephone company joined in the project wholeheartedly. Final layouts were approved; the entire idea was sold to all the government agencies; and an order placed for the new switchboard and associated facilities. In February of 1948, the new system went into operation, and proved an immediate success, as well as a tribute to government-industry cooperation. Not only was the service superb, but the government began saving at the rate of some \$85,000 per year. What the company saved by the release of a large group of operators, and in other ways, is not known to the writer, but it is his opinion that the company's benefits were commensurate. In the seven years since the board was cut over, everybody

has been happy with it, both from a service and a cost point of view. This board will probably prove to be the most durable memorial to the work of the public utility branch, and may well endure long after the branch may be reorganized out of existence.

Conclusion

STARTING in 1944 on a very modest scale, but aided by a top management, which helped but did not meddle, the public utility branch saved the government over \$15,000,000 or over \$20 for each \$1 spent. It did so by exercising a nationwide review and general supervision over the government's procurement of utility services. In so doing it entered into about every phase of utility operation and regulation.

It negotiated contracts, designed special rates, designed communications systems, and participated in all sorts of utility rate cases, concerning itself with just about every major issue that can possibly come up in a rate case: rate base, depreciation, working capital, fair rate of return, cost allocation, and the design of specific rates.

Throughout this period it followed steadfastly one basic philosophy—it represented the government as a *user* of utility services, and as such it asked no favors; only its just deserts as a user of service.

It successfully resisted pressures to get into rate cases where the government had only a minor interest, and equally successfully resisted pressure for it to stay out of cases where the government did have a significant interest.

If the writer had to select only one fac-

PUBLIC UTILITIES FORTNIGHTLY

tor responsible for the achievements of the branch, he would say, "A carefully selected, highly competent, very enthusi-

astic, and devoted staff, which was given the chance to do its job as it saw fit to do it."



Footnotes

¹ The only time pressure was exerted to have this group depart from this position of "non-sovereign user" occurred when a public utility official urged the then Secretary of the Treasury not to oppose a general rate increase, on the ground that the increased cost of service to the government would be far outweighed by the greater income taxes which the utility would pay, if the rate increase were granted. That contention was rejected for the obvious reason that the government had no interest in tax receipts arising out of excessive utility rates; that the request was tantamount to a special tax assessment on that utility's customers, and the payment to the utility of a fee (the net income after taxes arising from the rate increase) for acting as a tax collector.

² The rates specified in that contract were specially designed so as to cover the total use of all agencies on one monthly bill. Special provisions were included to reflect large use and demand in individual premises, and payment was made by one government agency, which agency then prorated the bill to the individual using agencies and was reimbursed by them.

While this contract was a very good one from the point of view of the government, in that electric service was obtained at a substantially lower cost than if it were billed on filed rates, it must have been compensatory to the company. The company had the right to cancel that contract, but did not do so until 1952.

However, as an offset to the financial benefits to government, there was this disservice: Electric utilities in general were very reluctant to discuss rate and contract problems, because they assumed that the government was looking for a conjunctive billing rate. It literally took years to overcome that feeling on the part of the utilities. Of course the New York rate was a conjunctive billing proposition, but it definitely was not the usual type of conjunctive billings, where a rate designed for one-premise use is applied to the aggregate load of

several premises, with the result that a very large portion of the use goes at the tailing blocks of the rate. The New York rate was specifically designed for the combined use of several hundred premises, and as such was a perfectly appropriate rate.

³ Simultaneously with the approval of the act, the President directed the Secretary of Defense, the Administrator of GSA, and the Director of the Bureau of the Budget to work out areas of understanding, and in effect prohibited the Department of Defense from exercising such exemption until these areas of understanding were worked out. As concerns utility services, two such areas of understanding were worked out—one dealing with communication, and one with all other utility services—and these formed the basis for an effective, co-operative procedure in the field.

⁴ The writer must admit of a strong temptation to put this freedom from interference on a par with the competence of the staff, and its enthusiastic willingness to work. It is his considered opinion, based on over a decade of government service, and an equal period of time with private business, that nothing is quite as discouraging, and hence destructive of creative and imaginative effort, as is "oversupervision." Without creative and imaginative effort, this kind of job simply cannot be done well.

⁵ As to this "use," a word of caution. The branch did not, and had no authority to control the volume and type of utility service a given agency used. It had no authority to limit the number or kind of equipment. It could not tell an agency to substitute telegrams for long-distance telephone calls, or mail for both. But it did have the right to indicate to an agency that if it took telephone service from a joint PBX serving several agencies, it could obtain better and less costly service than from its own small board. It could point out that by combining traffic on a common-use network of leased teletype lines, good service could be obtained at a substantial reduction in cost.

Uncle Sam, Coal Buyer

"THE United States government is one of the largest single buyers of coal in America. . . . The presence of this tremendous fuel buying power by the federal government is doing more to distress coal marketing than any other single influence today. Not only is the full weight of the federal government's buying power being exerted to drive coal prices downward month after month but, naturally, that example is followed by other producers of electric power, and the influence is extending into all markets."

—DAVID L. FRANCIS,
President, Princess Elkhorn Coal Company.



Barometers of Good Will

Opinions expressed by thousands of citizens interviewed by a number of electric, gas, and telephone companies show clearly that people are influenced in their attitude toward the utility by five factors, in the following order of importance: (1) physical service delivery to the customer; (2) employee's personal service; (3) rates; (4) publicity; and (5) appearance of the utility's buildings and equipment.

By ALFRED M. COOPER*

FROM the standpoint of improving utility public relations there are two types of surveys that are of vital importance. The first of these, of course, is the public attitude survey. The second is the employee performance survey.

The public attitude survey gives management an accurate picture, not only of how the citizens of the community served by the utility feel about the service they receive, but exactly what they like and dislike about that service.

The employee performance survey adds to this information an equally accurate delineation of the extent to which employee contacts with consumers is affecting public attitude for better or worse.

These two surveys complement one another, and each in turn is essential to the success of a really effective program of public relations training in the utility.

*Professional author, resident in Indio, California. For additional personal note, see "Pages with the Editors."

Guessing at either the reasons behind public attitude or the quality of performance of the contact employee is, of course, bad business. Particularly is this true when the intent is to do something to improve each of these good-will factors.

WHEN an effort is made to estimate roughly what the public likes and dislikes about utility service in any community, there is an excellent chance any remedial program is going to miss the bull's-eye. But once the findings of these two surveys have been carefully analyzed, all lost motion may be eliminated in removing unfavorable influences on public attitude.

This is readily understood when we remember that the No. 1 and No. 2 elements influencing utility public relations are physical service and employee performance. And it is true that physical service appears to become less and less impor-

PUBLIC UTILITIES FORTNIGHTLY

tant as a public relations factor as that physical service approaches perfection. As of today utility physical service is so very good that the public is hardly aware of it as influencing its attitude.

This is so true that it has been found advisable to give publicity to just how good the present-day physical service really is. Should we ever have another world war, two generations of utility consumers for the first time in their lives conceivably may experience repeated and severe interruptions of electric service. When service interruptions almost never occur, consumers come to accept this, without thought, as a natural state of affairs.

PUBLIC attitude and employee performance surveys may be very costly affairs to conduct, or adequate random sampling may be carried on at reasonable outlay. A very small survey department, set up perhaps within the public relations division, can conduct excellent surveys. In one instance I conducted a satisfactory public attitude survey as a function within the training division.

It has been argued that accurate, dependable results in such surveys may be difficult to attain if the interviewers are employees of the company covered by the survey. This is perhaps true where these interviewers constitute a regular part of the work force, and who thus identify themselves with the company.

For this reason it is well to employ interviewers part-time, and only for the duration of actual surveys. Since housewives can be developed into excellent interviewers, it is practicable to have on call a number of these who enjoy doing part-time work, and who can be trained to

bring in an impartial report from each interview. It is well if these women have no particular contact with the regular employees of the utility, except when consummating an interview.

OF course there is no objection to the employment of outside agencies to conduct surveys of any type. The discussion here merely points the way to a method of random sampling that can be carried on quite economically, yet which gets satisfactory results. An adequate survey department may consist only of the supervisor of the interviewers and a typist, with all other personnel part-time.

The technique of random sampling is now well understood, yet even today we continue to encounter short-cut survey methods in use — often market analyses taking the form of some sort of questionnaire mailed to the citizens whose opinions are sought. Such methods, which employ the old *Literary Digest* formula that proved so misleading in an earlier era, fail to utilize the essential services of the trained interviewer.

Interviewers should be selected because they are fairly intelligent, are teachable, and who look like run-of-the-mill consumers. Someone has said that the ideal interviewer is the type of person you can never remember having met before, even though you see her every day.

The interviewers should then be trained until they can be depended upon to turn in an honest, unretouched picture of what occurs at each interview they make. This training takes time and patience but it must be done properly or the interview reports may be extremely misleading.

Of course, a group of trained interviewers may carry on with equal success

BAROMETERS OF GOOD WILL

any type of merchandise survey, or indeed any sort of random sampling project needed to take the guesswork out of managerial decisions. When the machinery is available, and surveys may be conducted at little expense, random sampling becomes an invaluable instrument of executive control.

DETERMINING the areas within the community in which sampling is to take place, and the number of interviews to be made in different types of homes, is a simpler matter, yet this is also important. The total number of interviews made will be that which will "flatten the curve." Fewer than this number will distort the picture. More interviews than this does not change the indications, and merely wastes time and money.

Employee performance surveys are conducted much as are public attitude surveys, except that the employee does not know exactly when his personal service is being evaluated.

There are two important respects in which a utility employee performance survey should differ from the conventional "service shopping" of the department stores. In the first place, it is wise to inform the entire work force of the utility

that such a survey is to be made. The employees appreciate this, even though they never can be sure just when their service is being sampled. Bare announcement that the survey is in progress in itself has been found to affect beneficially employee contacting performance.

It is also true that, in any case, word will get about that these surveys are under way, and it is just as well to be sure the employees know exactly what is being done, and why.

THE second distinction is that, under no circumstances should the utility employee performance survey be used to pinpoint instances of poor performance on the part of individual employees. To obviate this, interviewers are instructed never to identify a contacted employee, *except when the service received during the contact proves to be exceptionally good.*

This fact also should be known to every employee at the time the survey is to begin. Such action prevents employees from developing any feeling of antagonism, of the sort that may be expected when a program of "spotter" service shopping is installed, usually within a merchandising establishment.



Q "FROM the standpoint of improving utility public relations there are two types of surveys that are of vital importance. The first of these, of course, is the public attitude survey. The second is the employee performance survey. . . . When an effort is made to estimate roughly what the public likes and dislikes about utility service in any community, there is an excellent chance any remedial program is going to miss the bull's-eye. But once the findings of these two surveys have been carefully analyzed, all lost motion may be eliminated in removing unfavorable influences on public attitude."

PUBLIC UTILITIES FORTNIGHTLY

From the viewpoint of those interested in employee training there can be no substitute for the public attitude and employee performance surveys. The first requisite in installing any public relations training program is that the administrator knows exactly what the problem is. With the findings of these two surveys before him he does not have to guess where to begin.

From the interview sheets turned in, an inexhaustible supply of authentic case material becomes available. Not only that, but the public attitude survey also epitomizes those elements of employee contacting performance which do most to please or irritate consumers. Therefore, in addition to a mine of material from which to build concrete cases for discussion, there is also on tap, and ready-made, a complete course outline. And this outline is based, not on conjecture of needs, but upon the expressed desires of the consumers themselves for improvements in service.

FOR example, it was from a comprehensive series of public attitude surveys, conducted within a number of communities served by several power companies, three electric railways, a gas company, and three major telephone companies, that the five factors influencing utility public attitude, and their order of importance, were determined.

Consensus of the opinions expressed by the thousands of citizens interviewed in these communities established clearly that these people were influenced in their attitude by the physical service they received, by the utility employee's personal service, by rates, by publicity in all its forms, and by the appearance of the util-

ity's buildings and equipment; and in this order of importance.

In the same fashion these surveys established clearly what it was in the personal service of an employee that the consumers liked or disliked. Thus it was possible to state that the consumer most of all wanted a real interest to be shown in his problems, wanted any information given by the employee to be accurate, clear, and complete, was influenced by an employee's speech, his politeness, and his appearance—and all these in the order here given.

It was even possible to prove that the consumer attached weights to each of these elements of personal service, as follows: interest, 40; information, 25; speech, 15; politeness, 10; and appearance, 10.

Thus the subject matter for a comprehensive training program in public relations automatically emerges from the two surveys. If the consumer is most concerned with the interest shown in his problems, then obviously this is the element in the employee's personal service that should be first improved. The comparative weights indicate that any effort exerted to this end will show greatest results.

A SUCCESSFUL training program of this type may begin with two conferences in which all cases discussed deal with the subject of interest. Thereafter, two conferences deal with information, followed by one each on speech, politeness, and appearance. This forms an excellent introductory series of meetings.

All employee performance surveys should be carried out in terms of the five elements listed above. The interviewer's rating sheet should be so arranged that



Proper Use of Customer Attitude Surveys

“BECAUSE the attitude of the citizens of any community toward the public utilities is usually grounded in decades of company-consumer relationships, rarely does it occur that the findings of a public attitude survey will be the same in different communities. Frequently, because of unique local factors, they are not even similar. Follow-up surveys take care of changing conditions affecting public attitude and employee performance, and also furnish an accurate month-by-month method of measuring improvement in public relations.”

each contact made with an employee can be broken down to indicate the interest shown, the information given, et cetera.

In order to assist in training the interviewers, each should become familiar with rating sheets that further break down the elements of personal service into those factors for which the interviewer must forever be on the alert.

Thus, in rating interest, the interviewer asks himself: To what degree did the employee actually indicate interest in my problems? Attention? Listening? Questions? Open-mindedness? Helpfulness?

For rating information, the sheet asks: To what degree was information clear?

Complete? Concise? Vivid? Accurate? Was information given willingly, convincingly, and without undue questioning?

In rating speech, the interviewer checks: Pronunciation? Enunciation? Pitch and tone of voice? Choice of words?

The check on politeness covers: Gestures? Words and phrases? Facial expression?

On Appearance: Clothing? Grooming? Jewelry? Mannerisms?

FROM the foregoing it will be appreciated that interviewers must be most carefully trained.

PUBLIC UTILITIES FORTNIGHTLY

Such a rating sheet as this assists the interviewer to get away from guesswork and general impressions by requiring that each contact be carefully analyzed.

It may bear repeating that every effort should be made to conduct an employee performance survey so as not to create dissatisfaction among the employees. In making this effort to better public relations it is unwise to worsen industrial relations. The employees must understand that no effort ever will be made to "get something" on individuals; that the intent is rather that of evaluating the personal service in any *department*.

However, there is no reason why the average departmental ratings may not be made known to the employees of all contact departments, as a means of motivation for improvement of service through an appeal to departmental pride. The best time to publish these findings is in the opening meeting of the training course.

There is a natural sequence to a series of surveys of the type we have been discussing. First, the public attitude survey. Second, the employee performance survey, followed by the initial seven conferences of the training program, these spaced at two-week intervals.

Then, in order to evaluate progress, a second public attitude survey, followed by a second employee performance survey. Thereafter, sampling should be continued, perhaps less intensively, so that a running check may be made on the progress of all efforts to improve public relations. The trained interviewers, as has been noted, may also be called upon to conduct other types of surveys as the need arises.

IN the early days of random sampling it was felt that all surveys should be

conducted by organizations outside the utility. The thought was that a survey made by interviewers in the employ of the company might not be altogether reliable. However, experience has proved that a small survey department, set up perhaps within the framework of the public relations division, develops dependable reports. It should never be a part of the training division setup, since one of its functions is that of evaluating the worth of the existing training program in public relations.

AFTER the introductory seven conferences in the training program have been completed, subject matter for follow-up conferences may best be determined by a study of the later employee performance surveys. However, it is well to devote a portion of the follow-up conferences to the development of a standard practice in public contacting.

This standard practice should be worked out by the contact employees themselves, in question-and-answer form, and after discussion in the training conferences. If desired, the standard practice may be divided according to the elements of the public contact, with sections relating to interest, appearance, et cetera. Such a standard practice becomes an invaluable aid in training new employees of contact departments.

Another excellent training device for use in the follow-up conferences is that of the dramatized contact, in which two employees write and present before the group an imperfect consumer-employee contact, after which each group member scores the dramatization in terms of the interviewer's rating sheet, thereafter justifying his ratings during the general discussion that

BAROMETERS OF GOOD WILL

follows the dramatization. Both the preparation of standard practice material and the presenting and rating of dramatized consumer-employee contacts are instruction of the highest order.

THE intent here, of course, is to encourage these employees to analyze their own personal service in terms of the five elements. The approach is always indirect, as in all conference instruction, and at no time is any employee *asked*, either to evaluate his own service, or to improve it. Nevertheless, this is exactly what he does.

The success of any employee training program depends in considerable degree on the attitude of the supervisors of the company toward that program. With this in mind, it has been found desirable to utilize the services of supervisors of contact employees as instructors in the public relations training program. These men and women make excellent conference leaders; the qualifications of a good supervisor and those of a conference leader are identical.

When this can be done, the follow-up on the training, and the carry-over to the job, are much improved. The supervisor is then in an ideal position to see to it that the improved methods of contacting agreed upon by the employees in conference actually are put into effect on the job. Furthermore, any reprimanding done by the supervisor regarding an employee's poor personal service will be

much more effective when it is done in specific terms of the elements of personal service, rather than with vague, general admonitions to "be more courteous."

FOR best results both the original public attitude and employee performance surveys should be completed before the training program in public contacting is begun. The three may be considered as following in natural sequence, in the order we have indicated.

Approached thus, the entire program meshes smoothly, and there is no lost motion due to guessing at what training is needed by the employees in that particular utility.

Because the attitude of the citizens of any community toward the public utilities is usually grounded in decades of company-consumer relationships, rarely does it occur that the findings of a public attitude survey will be the same in different communities. Frequently, because of unique local factors, they are not even similar.

Follow-up surveys take care of changing conditions affecting public attitude and employee performance, and also furnish an accurate month-by-month method of measuring improvement in public relations. Particularly as regards employee contact training, such a yardstick for evaluating results attained makes it possible to know exactly where to place the emphasis, and exactly how well remedial efforts are succeeding.

Q "As the industrial revolution freed men's muscles automation will free their brains."

—GILBERT BRIGHOUSE,
Professor of psychology,
Occidental College.



OUT OF THE MAILBAG

Chairman Durfee Replies

IN your April 14th issue, commencing on page 437, there appears a lengthy criticism of my article in your magazine on "Wisconsin and the Phillips Case" by Ralph E. Davis. Mr. Davis was a pipeline consultant hired by the parent company of the Michigan Wisconsin Pipe Line Company as a witness in their original case before the Federal Power Commission to serve Wisconsin with natural gas. Mr. Davis says:

Mr. Durfee makes some erroneous implications (pages 71, 72, PUBLIC UTILITIES FORTNIGHTLY, January 20, 1955) about the price provisions of the Phillips contract. No gas was ever sold under this contract at five cents. And price adjustment, or escalation, was provided for in the original contract dated December 11, 1945; it was not a supplementary provision "added to the original contract by amendments which the pipeline company had to accept because of contract deadline dates and construction difficulties" (page 72). Furthermore, the price was not raised to 8½ cents for "unmerited" reasons. Under the normal operation of the escalation clause, the price would have turned out to be 8½ cents by the time the first gas was sold in 1949.

The only accurate statement in this quotation from Mr. Davis is that no gas was ever sold under the original contract at five cents—and he can say that again.

BUT since Mr. Davis wants to get the record straight that the price escalation from 5 to 8½ cents per Mcf was not—as I said—a supplementary provision added to the original contract by amendments which the pipeline company had to accept because of contract deadline dates and construction difficulties, let's take a look at the record. Let's take a look at what top officials of Phillips and the Michigan Wisconsin Pipe Line

Company told their own respective directors was the reason for the increase in price of 5 to 8½ cents per Mcf before Phillips ever delivered a foot of gas to the pipeline. Bear in mind that the original contract was dated December 11, 1945, with an initial price of 5 cents per Mcf.

I shall first refer to Exhibit No. 18 in the printed record of the Phillips Case in the U. S. court of appeals (1953) 100 PUR NS 506, 205 F2d 506, D. C. Case No. 11247 (later affirmed by the U. S. Supreme Court (1954) 347 US 672, 3 PUR3d 129, 98 L ed 1035)). This is a report from A. M. Rippel to George P. Burns, both Phillips' officials, dated March 14, 1947, in which the Michigan Wisconsin Pipe Line Company contract was discussed. It concludes:

In order to receive a greater price for gas from our reserves dedicated to Michigan Wisconsin, three courses are suggested:

1. Dedicate more reserves (Peerless, Cabot, and others) to the Michigan Wisconsin project, obtain consent of four producing companies now under contract to sell gas to Phillips to stay with the project, and hazard the success of a new certificate case with the present commission.
2. Do nothing until it may become apparent that Michigan Wisconsin cannot meet the gas delivery date east of the Missouri river by January 1, 1949.
3. Approach Panhandle Eastern Pipe Line Company with the suggestion that subject to Phillips not delivering any gas under its contract with Michigan Wisconsin Pipe Line Company, Phillips will sell negotiated volumes to Panhandle at prices by 5-year periods of six, seven, eight, nine, and ten cents per Mcf.

I am of the opinion that top management negotiations between Phillips and Mich-

OUT OF THE MAILBAG

igan Wisconsin should be reviewed before making a definite recommendation. However, if it is decided to not pursue my first suggestion, I would recommend that we approach Panhandle Eastern as suggested in 3.

To continue to get the record straight, I would next call attention to Exhibit No. 21 from the record in Phillips' appeal (page 7217). Here we find Phillips' president reporting to his board of directors, according to the written minutes of their meeting of September 27, 1948, as follows:

As a matter of information, the president reported on the results of negotiation of an amendment to the gas sales contract with Michigan Wisconsin Pipe Line Company, explaining that the price of gas had been raised from 5 cents to 8½ cents per thousand cubic feet, with a one-cent increase per thousand cubic feet each five years, together with an escalation clause. Additional acreage in the Panhandle gas field, comprising 40,000 to 50,000 acres have been dedicated under the contract, and present estimates indicate these price increases will result in increased income to the company of between \$15,000,000 and \$20,000,000 over the life of the contract.

While this exhibit was not received in evidence, its inclusion in the appeal record was agreed to by Phillips' attorney and its authenticity has never been challenged.

Of the additional acreage of 40 to 50,000 acres, 28,000 acres were omitted by mistake from the original contract. The total acreage dedicated to the pipeline project was 647,000 acres. (Testimony of K. S. Adams, Phillips' chairman, p. 506, Phillips Case record, U. S. court of appeals.) It can hardly be argued that the addition of less than 4 per cent of the original intended acreage was the consideration for raising the price from 5 to 8½ cents, particularly when a Phillips official had pointed out the possible alternative of selling the same gas to Panhandle Eastern for 6 cents only eighteen months before.

The principal reason for the price increase was the extension of the deadline date in the contract under which the Michigan Wisconsin Pipe Line Company had to commence taking deliveries. This date in the original contract was January 1, 1949. The pipeline

company couldn't meet it due to construction difficulties, as I said in my article, so it agreed to a price increase of 80 per cent primarily to get an extension of the deadline date. This conclusion is established by an excerpt from the report of the chairman of the Michigan Wisconsin Pipe Line Company to his directors on August 7, 1948 (Exhibit No. 163, Federal Power Commission Docket Nos. G-1678 and G-1966):

The chairman (of the Pipe Line board) stated that to relieve this situation Phillips had offered to extend the river crossing deadline by six months, and to grant a similar extension in the date of the commencement of operation of the minimum take provision. Phillips also offered to dedicate substantial additional gas acreage to the project.

In consideration for these concessions, Phillips insisted upon an increase in the contractual prices of gas and a modification of the inflation clause so as to limit possible price reductions in future periods to certain minimum prices.

MR. DAVIS also contends that the Wisconsin commission, inconsistent with its criticism of the Phillips contract, vigorously supported this proposed line (the new American-Louisiana Pipe Line project which will double the gas supply to Wisconsin). He quoted from my statement before the Federal Power Commission in this case that the Wisconsin commission supported the motion for a conditional certificate. This is much different from his statement that we vigorously supported the proposed line itself, including the price of 20 per thousand cubic foot to the producers. He failed to note my statement just preceding the portion he quoted, which is on the same page of the official transcript (FPC Docket No. G-2306 et al. page 5399):

Mr. Durfee: I am chairman of the Wisconsin Public Service Commission and appear here representing the Wisconsin Public Service Commission in the absence of William E. Torkelson, our chief counsel, who has appeared up to now, but who was engaged in the Supreme Court yesterday afternoon.

First I wish to clarify the position of the Wisconsin commission in this proceeding. The Wisconsin commission filed an

PUBLIC UTILITIES FORTNIGHTLY

appearance in the public interest of the consumers of our state and appeared as the interests of the state of Wisconsin may appear. *We have not at any time on the record in this case appeared in support of this application*, I think because of the obvious implications of the duties that evolve upon us as the regulatory agency of Wisconsin, which ultimately may have to regulate what additional natural gas is brought into our state.

However, I wish to make it also equally clear that we do now support the motion of the American-Louisiana Pipe Line Company for a *conditional certificate*, with the provisions which we have set forth in our statement in support of their application, to wit, that such procedure, the adoption of the issuance of a conditional certificate, be without prejudice to the rights of any interveners, Wisconsin interveners, in their attempt to obtain natural gas in these cases.

Second, that any certificate issued provide that it is subject to such further conditions as the Federal Power Commission may find required by public convenience and necessity after further hearings held following the issuance of the conditional certificate. (*Italics supplied.*)

I FURTHER pointed out to the FPC that "we are not here urging any relaxation of the orders of this commission, Nos. 174 and 174-A." These orders were adopted by the FPC on July 7, 1954, and July 30, 1954, after we prevailed in the Phillips Case in the U. S. Supreme Court and required producers to file and submit to FPC jurisdiction pursuant to the Phillips decision. Mr. Davis left out that part of my statement, which he could hardly quote and still argue that we were supporting this new line inconsistent with our criticism of the Phillips contract. Having successfully fought the Phillips Case from 1950 to 1954, we do not propose to now take any inconsistent position. That part of the transcript of my statement to the FPC in the new American-Louisiana Case, which Mr. Davis left out, clearly demonstrates the complete consistency of our position.

If, as Mr. Davis says, he hopes to promote an atmosphere of mutual understanding between producing and consuming areas, I suggest straightening the full record of what

happened in the Phillips Case. Your readers can draw their own conclusions from the official records I have quoted, written by the executives of Phillips and the Michigan Wisconsin Pipe Line companies as to how and why the contract was extended and the gas price was raised. Let them judge from the record who is "making erroneous implications."

—JAMES R. DUFFEE,
Chairman, Wisconsin Public
Service Commission.

Telling the Truth about the Preference Clause

EDITORIALS on the "preference clause" which are appearing in many newspapers and magazines are encouraging. Too few people recognize this cornerstone of the Socialist-Communist program for the United States.

If the light of truth regarding the "preference clause" can reach the voters of America the law will be changed. I am sure over 90 per cent of our citizens detest Socialism. They would not knowingly aid its cause by furthering this dishonest and unfair practice of "preference." Its continuation can destroy our private utility business which has been and still is one of our country's great assets.

May the editors and other leaders in the United States awaken and tell our people the truth. Ultimately "preference clause" thinking will destroy the right of individuals to own property. It is a symptom of our Socialist-Communist infestation which has deluded many people because no prominent danger flags have been flying.

Somehow the truth must reach citizens and Congress in its most simple form. Like $2 + 2 = 4$. Truth has always been an enemy of Socialism and Communism. Truth will prevail in Oregon, in Tennessee, and every state. Truth will elect members of Congress devoted both to constitutional government and fair play.

It can be done—but it is a very big job. Our real danger today is a natural complacency that freedom can continue in America without our vigilance and labor.

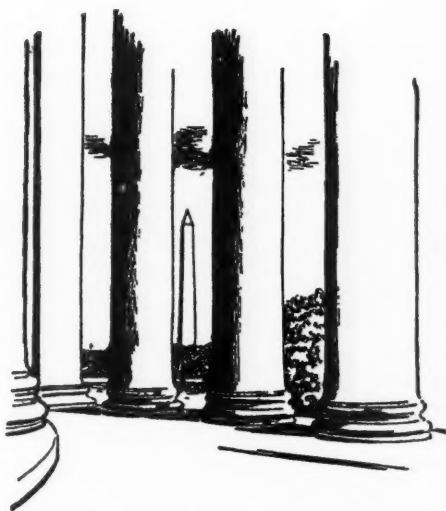
—LLOYD L. PETERSON,
Vice president, Interstate
Power Company.

Washington and the Utilities

The Hoover Resources Report

THE final release of the long-awaited Hoover Commission Report on Water Resources and Power was somewhat anticlimactic in view of the wealth of early rumors and advance predictions of what it would contain. Nevertheless the official release did have the effect of setting an authoritative seal on a critical analysis of waste, overlapping, confusion, and various other defects of fiscal management and policy which have grown up in the realm of federal development of water resources and power production over the past two decades.

The Hoover Commission, after a two-year study of the bitterly controversial national problems of water resources and public power, outlined a program it said would assure an equitable distribution of water and power with a minimum of federal participation. It urged Congress to (1) once and for all lay down a definitive, comprehensive, coherent, and understandable water policy—now lacking; (2) create a permanent Water Resources Board to advise the President; and (3) keep the government in the business of producing and distributing electric power, but set



“fair rates” which will enable the enterprises to pay their way. (The Hoover Commission asserted that they do not now pay their way and that 90 per cent of the people are being taxed to subsidize benefits for 10 per cent of the people.) (4) Allow private utilities to buy a fair share of public power.

WATER resources and public power have been matters of bitter and growing controversy for at least three decades. But it appeared certain that the Hoover Commission's report—based, it said, on “the most far-reaching study of the problem ever made”—not merely failed to still the growing conflicts but actually fanned them to a new heat.

One of the commissioners, Representative Holifield (Democrat, California), an outspoken liberal, denounced the fourteen recommendations as “useless, if not dangerous.” The administration's two representatives on the 12-man commission, Attorney General Brownell and head of the Office of Defense Mobilization, Arthur S. Flemming, dissented from the report and most of the recommendations. They said the commission analyzed

PUBLIC UTILITIES FORTNIGHTLY

the problem "with great clarity," but failed to find "adequate solutions."

JAMES A. FARLEY, former Postmaster General and one-time Democratic National Chairman, expressed fear that the commission invites "an abdication of the federal government of its responsibilities to insure proper development of the country's great natural resources."

Former President Herbert Hoover, chairman of the commission, said of the opposition views: "Some of them ignore the fundamental purposes for which the commission was created and the directive which the commission received from Congress. Some others indicate a misunderstanding of the recommendations and their implications."

It emphasized the Hoover Commission's confidence that the public interest is protected through regulation of power rates, services, security issues, holding companies, etc. Going a step further, the commission declared that electric power development directly by the federal government is not necessary to supply what may be required for present and future defense activities.

The commission's majority report makes the following recommendations, in brief: (1) The present water resource committees at Cabinet level should be merged into a single Water Resources Board to be located within the Executive Office of the President; (2) federal government power project agencies should respect state laws and rights relating to water resource development; (3) federal power project agencies should pay all cash revenues into the U. S. Treasury as miscellaneous receipts and receive annual appropriation for operating expenditures; (4) FPC should regulate all rates for power sold by federal agencies in order to (a) eliminate inequities now imposed

upon a majority of the population, (b) amortize and pay interest upon the federal power investment, plus an amount equal to the federal taxes which would be paid by privately owned utilities, and (c) provide payments in lieu of full taxes to the state and local governments equivalent to those the private utilities would pay; (5) the federal government and its agencies discontinue building any more steam plants and provide for interconnection with neighboring grids; (6) private utilities should be permitted to purchase "a fair share of federal power," thereby modifying so-called "preference clause" commitments as previously construed; (7) TVA should be required to obtain its capital by issuing securities to the public; (8) the Columbia river basin system, Hoover-Parker-Davis dams administration, Central Valley project (California), Missouri river basin project, and Southwestern Power and Southeastern Power administrations should be incorporated under and made subject to the Government Corporation Control Act; and (9) private enterprise should be offered the opportunity to provide capital for the electric component of big multipurpose dams.

Phony "Benefits" Exposed

ALLEGED "benefits" and "justifications" for federal power projects have been expanded from systematic direct benefits into nebular indirect benefits, the Hoover majority report declared. Documentary evidence was presented in support of this contention. "Congress should step in and provide more realistic criteria for such calculations," the group recommended. The Moreell Task Force uncovered 25 principal federal agencies having functions relating to water use. Nine of these are concerned with power transmission and distribution and fifteen with power

WASHINGTON AND THE UTILITIES

generation. About thirteen are concerned with water supply problems.

A subgroup dug into federal agency claims of profits earned on various projects and found no justification. The federal project subsidy burden is very unequally distributed, according to the Hoover study. It was disclosed in the report that when the present federal projects are completed, the total population benefited will be less than 10 per cent of the entire population. This subsidy, says the report, is even more sharply illustrated in the case of the Middle Atlantic states, which have 20 per cent of the total population and pay nearly 30 per cent of the taxes while receiving no federal power directly or indirectly.

No action by Congress, of course, is to be expected on the latest Hoover Commission report at this or even the next session. It might be possible for the President, by Executive Order, to put some of the lesser recommendations into effect—such as the consolidation of overlapping committees at the Cabinet level into a single board. But in view of the over-all pattern of both financial and economic reform envisioned in the report, real progress would require major and controversial statutory action by Congress. The executive, therefore, is not likely to engage in any attempt to carry out, piecemeal, parts of the program.

Gas Bill Struggling

IN the opinion of President Eisenhower, Congress is "making progress" in devising legislation fair to both producers and consumers of natural gas. Shortly after this statement by the President, at his news conference on June 29th, the Senate's Interstate and Foreign Commerce Committee reported a bill (S 1853) exempting producers and gatherers of

natural gas from price regulation by the FPC. The committee's vote was 11 to 4.

The bill, approved by a large majority of the Senate committee, was almost identical with the measure that had met sharp opposition early in June in the House Interstate and Foreign Commerce Committee. It was reported by the House committee by a vote of 16 to 15 on June 8th. While side-stepping full endorsement of the bill, the President said legislation on which Congress was working would protect all concerned. The bill was sponsored in the House by Representative Oren Harris and in the upper chamber by Senator Fulbright—both Arkansas Democrats.

THE President's attention was called to a statement by Speaker of the House Sam Rayburn (Democrat, Texas), in which he said that it would take the power and endorsement of the administration, of the President himself, to get the Harris Bill (HR 6645) passed by the House. Asked if he would endorse and support the bill, the President said that he received a lot of advice on the measures, but the particular bill had not been brought to him for endorsement yet.

When the press reports of President Eisenhower's comments were brought to Acting Chairman Pastore (Democrat, Rhode Island) of the Senate Commerce Committee handling the bill, Pastore made a political comment which was doubtless very much in the mind of White House advisers. Pastore, one of the four opponents of the bill in the Senate committee—the others are Chairman Magnuson (Democrat, Washington) and Senators Potter (Republican, Michigan) and Purtell (Republican, Connecticut)—said that if President Eisenhower is going to be a candidate for re-election in 1956 he should "look a second time" at the bill.



State Telephone Industry Holds Management Institute

A UNIQUE statewide conference of the Washington state telephone industry was held recently in Seattle. The conference was a joint undertaking of the Washington Independent Telephone Association and the Pacific Telephone & Telegraph Company, and a sequel to the successful "Plant Clinic" conducted by the same groups during the fall of 1954.

Designed to promote improvements in management operations, the "Management Institute" specifically stressed the importance of the latest developments in merchandising telephone service; the fundamentals of good business practices, service orders, customer service records, systems of accounts, billing, collecting; and a sound public relations plan.

The many ways of creating more revenue through the sale of additional subscriber services were skillfully demonstrated by business office supervisors of the Pacific Company. Their performance demonstrated techniques for increasing the number of extensions either on or off the premises, colored telephone instruments, the upgrading of service, private lines, additional directory and joint user listings.

The values inherent in good business

JULY 21, 1955

Wire and Wireless Communication

office practices and standards of good service were reviewed by W. J. Billings, division commercial manager of the Pacific Company. He outlined in some detail the observation methods used in actual subscriber interviews and the use of such data in training and improving personnel.

BILLINGS also covered the advantages to be gained from thorough subscriber background information which assists in proper credit classification.

Another high light of the conference was the subject of proper accounting methods and the many benefits to be realized from maintaining accurate accounting records as prescribed by the regulatory agencies. Don Childers, commercial manager of the Oregon-Washington Telephone Company, led this most interesting forum.

He stressed the need of accurate information when increased rates are necessary or at such time as the property may be for sale. He further pointed out the savings in time, particularly by the commission staff, when it realizes that the records are accurately kept and that costs are properly recorded. The many questions which were forthcoming evidenced the interest which the representatives of the industry had in this phase of the operation.

Subscriber understanding of the tele-

WIRE AND WIRELESS COMMUNICATION

phone industry, its policies, and its operations has a great deal to do with how well "customers feel we are doing our job." The methods and procedures which can be used to develop better customer understanding were fully discussed by J. R. Gibbons, customer relations supervisor, the Pacific Company. Surveys provide important data from which better service may be offered to the subscribers and through this service an enlargement of their use results in a greater number of satisfied subscribers as well as increased telephone revenues.

IN view of the many dial conversions and the gradual loss of personal contact with the subscriber, it is highly important that representatives of the industry take part in more community activities. In this way contact can be maintained with the subscriber and the identity of the telephone company retained, although the girl with "the voice with a smile" has left.

Increased telephone rates are based upon many factors which were outlined and described by Andrew J. Zimmerman, executive director, Washington Independent Telephone Association, in his discussion of the fundamentals underlying rate increases. Zimmerman was formerly director of public utilities of Washington and, to meet an emergency, held continuous hearings on the application of 39 independent telephone companies for rate increases. This is believed to be the only time in regulatory history that such a program has been undertaken.

He stressed the importance of accurate accounting records to segregate operating expenses from items of plant which should be capitalized. Every company, particularly the smaller independents, should review their depreciation practices as many unintentionally are not being compensated for the utility plant that is being consumed in furnishing public service.

He further pointed out that every company should make sure that its investment in telephone plant in service, telephone plant under construction, and telephone plant held for future use, together with adequate working capital, should be accurately reflected in the rate base so that all capital funds may be considered and provision made for adequate compensation in the rates for telephone service. In his opinion, utilities that are financially anemic are worse than no utilities at all as they are serious problems for management, for the regulatory body, and the public.

In all, sixty-three representatives attended the two-day conference, three of whom were from the engineering and accounting sections of the Washington Public Service Commission.

The "Institute" originated through the efforts of Andrew J. Zimmerman, executive director of the independent telephone association, and Michael J. Murphy, general commercial agent, Pacific Telephone & Telegraph Company, Seattle, Washington. It is another step in the many joint undertakings of the statewide industry. It makes it possible for each company to share in the experience of all those represented as solutions are found for problems.

CIO-CWA Convention

FINANCIAL difficulties and problems arising out of automation held the center of the stage as the CIO Communications Workers of America met in St. Louis late last month for their ninth annual convention. The mood of the convention, as might be expected, was pretty much dominated by conversation about the costly 72-day strike against the Southern Bell Telephone & Telegraph Company. The strike virtually wiped out the union's defense fund, which is now approximately \$1,850,000 in the red. After a stormy session,

PUBLIC UTILITIES FORTNIGHTLY

the delegates agreed to assess each union member one day's pay, which would produce \$4,000,000 for the defense fund. This is half of the \$8,000,000 CWA President Joseph Beirne said is needed to meet obligations arising out of the strike and provide a cushion for possible 1956 strikes.

The Southern Bell strike cost the union \$4,315,212, A. T. Jones, union vice president, told the delegates. In addition, the CWA borrowed \$1,500,000 from other unions, and has suits for \$125,000 and \$60,000 pending against CWA members in the South. On top of this, Southern Bell has filed a \$5,000,000 suit against the CWA itself. Actually, the total amount spent for the strike is expected to go higher than the figure cited by Jones as spending continues to finance aid to discharged employees and to handle their arbitration cases. President Beirne bitterly denounced Southern Bell, claiming that it deliberately and premeditatedly provoked a dispute in the nine southeastern states. "After seventy-two days," said Beirne, "trying with all the influence and all the might, all the wealth, and all the strength of a protected telephone monopoly, the overwhelming majority of our people in those nine states stayed out for seventy-two days, and won completely the principle which first forced them to go on strike." There was no special comment about the company winning its no-strike pledge.

TECHNOLOGICAL advances thought to be responsible for the drop in the number of union-eligible employees from 608,000 to 588,000 are another source of worry to the CWA. President Beirne called automation one of the great challenges the union has to face. Denying that he was against the machine, Beirne said "what we do believe and what we do say is that we should not be caught short on the changes in industry which take place, so that the changes upon us are to our

detriment." The convention adopted a resolution calling for an intensive organizing campaign to help make up losses resulting from technological reductions in force. Reportedly, CWA's potential membership in the Bell system dropped last year from 338,000 to 327,000, while the Bell system put into operation during the same period 1,400,000 additional telephones.

Union Vice President John Crull outlined the CWA's bargaining objectives for the coming year. Topping the list is a demand for a 35-hour week. In addition the union will seek reductions in traffic central office tours ending after 6 P.M. to a maximum of six hours with no reduction in pay; a reduction in day and night tours to a maximum of seven hours with no pay cut; abolition of area wage rate differentials; a company-paid hospitalization and surgical benefits plan; and establishment of pension plans where none now exist. The delegates turned down proposals to make increased vacations a part of the national bargaining program and to include in one "package" demand a cost-of-living increase, time and one-half for Saturday work, double time for Sundays, and triple time for holidays.

Other resolutions approved by the convention included one calling for a study of the value of arbitration of labor disputes in the communications industry through federal or state law; one urging a congressional investigation of the impact of automation; and on approving the AFL-CIO merger. An interesting resolution, turned over to the executive board of the union, calls for a study of public ownership of telephone facilities in the United States and Canada. The resolution declares the CWA's faith in commission regulation of telephone companies and states the union's belief that both Canada and the United States have the world's best service.

Financial News and Comment

By OWEN ELY



Atomic Power Almost Competitive Now?

THE infant industry, atomic energy, appears to be growing at a lusty rate. Walker L. Cisler, president of Detroit Edison and of the Atomic Industry Forum, recently forecast an expenditure of \$300,000,000 on atomic energy projects in the next four years, compared with \$50,000,000 spent prior to 1954. The survey was based on information from over 400 companies which probably account for about three-quarters of the private U. S. atomic industry on a dollar volume basis. Large atomic electric power stations will not become competitive with conventional fuel-generated power before 1962, it was estimated, though this seems at

variance with other estimates. (See below.) It may prove necessary to construct and operate atomic generators with an aggregate capacity of some 3-5,000,000 kilowatts before the competitive break-even point is attained, according to the survey.

It was also predicted by 1964 annual expenditures may be running at a rate of several hundred millions of dollars. The field will include three major divisions—large central reactors, reactors for use in ships and aircraft, and small reactors for special uses. The manufacture of components and equipment is expected to expand rapidly, possibly reaching \$700,000,000 a year by 1963 (according to one estimate—others are much lower).

A great deal of interest centers in the forthcoming International Conference at Geneva on peaceful uses of atomic energy. For some reason the United States' commercial exhibits by 21 companies will occupy only 7,500 square feet of space, while 100 British manufacturers plan to use 21,000 feet, and Russia plans for 26,000 feet. However, only the U. S. will have an actual reactor on exhibition, it is understood—a very small power reactor housed in a large tank of water so as to permit easy inspection.

THERE still seems to be considerable latitude in various estimates of the

DEPARTMENT INDEX	Page
Atomic Power Almost Competitive Now?	111
Table—June Utility Financing	113
Effect of Dividend Pay-out on Prices of Electric Utility Common Stocks	114
Chart—Pattern of Market Ratios (Ebasco Value-graph)	115
Electric Utility Statistics and Ratios	116
Secretary Weeks Urges Higher Utility Earnings	117
Central & South West Corporation	117
Table—Ten Electric Utility Growth Stocks	117
Table—Data on Gas, Telephone, Transit, and Water Utility Stocks	118, 119

PUBLIC UTILITIES FORTNIGHTLY

cost of generating electricity in the several large-scale reactors now being built or projected. These include the Duquesne-Westinghouse 100,000-kilowatt plant, Consolidated Edison's pressurized-water reactor of 200,000 kilowatts or more; the Nuclear Power Group's 180,000-kilowatt boiling-water design; the Atomic Power Development Associates' 100,000-kilowatt fast-breeder; Yankee Atomic Electric's 100,000-kilowatt "light water, moderated, and cooled" reactor; and Consumers Public Power District's 75,000-kilowatt sodium-graphite reactor. Two other types of reactors remain to be tested commercially—the liquid-metal-fueled, and the organic-compound-moderator.

THE Duquesne plant, first to actually get under way, involves relatively high-cost electricity. One of the latest plants, however—the one being constructed by General Electric for the Nuclear Power Group—will be able to approach a competitive basis with coal-fired generating units, it is claimed. Thus the letter to stockholders of Commonwealth Edison Company from Chairman Willis Gale, dated May 13th, states:

Edison will own and operate the plant and will pay \$30,000,000 toward the \$45,000,000 contract price. This amount, plus the \$500,000 cost of the site, plus overhead costs, is proposed to be included in Edison's utility plant account. On this basis (which thus excludes \$15,000,000 of the total cost), it is estimated that the nuclear plant will produce electricity at a kilowatt-hour cost approximately competitive with new coal-fired generating units in our service area.

The remainder of the contract price—\$15,000,000—will be paid as a research and development expense over a period of five years by American Gas & Elec-

tric Service Corporation, Bechtel Corporation, Central Illinois Light Company, Illinois Power Company, Pacific Gas and Electric Company, Union Electric Company of Missouri, and Commonwealth Edison. Edison's share will be \$3,000,000.

IT is difficult to arrive at an average overall U. S. cost of generating electricity by fuel. The average cost (kilowatt-hour revenue) last year was 17.7 mills but this included a considerable amount of hydro power; excluding this average, cost might approximate 1½ cents or 15 mills. Of this amount, fuel probably accounted for only about 3 mills and other bus-bar costs perhaps 2 mills more, with transmission, distribution, maintenance, depreciation, taxes, general overhead, and capital costs accounting for the balance. Net operating income in effect represents capital costs and accounts for about 22 per cent of the electric revenue dollar, or a little over 3 mills per kilowatt-hour.

On this basis the Commonwealth Edison statement would seem to indicate that the new plant could produce electricity at only about one mill less than the over-all 1.5 cent cost. However, if taxes and depreciation should also be included along with capital costs, the difference might amount to 2 or 3 mills. Of course these figures are largely conjectural, and a more detailed explanation of the Commonwealth Edison statement—and why it is at variance with the Cisler survey—is awaited with interest.

Perhaps a clue to the progress made by General Electric in reducing costs is contained in a recent item in *Newsweek* for May 9th, in which two GE experts were quoted as proposing to reduce the shielding needs of any atomic engine by one-half, through eliminating the heat exchanger as a separate unit. "This bulky

FINANCIAL NEWS AND COMMENT

contraption," *Newsweek* stated, "makes steam for a turbine via pipes carrying hot liquid from the reactor. Instead, the GE men would nest the reactor in a self-pumping cylindrical heat exchanger. This would serve to (1) shield the reactor's radiation and (2) eliminate most of the radioactive plumbing."

ANOTHER interesting but almost incredible prediction appeared in *The New*

York Times of June 2nd. Robert E. Ferry was said to have predicted atom-heated homes within three to six years—which would be quite a blow to the gas industry if the prediction works out. The nuclear heating plant would heat and cool a home, provide unlimited hot water, and even melt the snow from sidewalks and driveways, at a "fuel" cost of about \$50 a year. This fuel would not be highly radioactive and there would be no possibility of its



JUNE UTILITY FINANCING

PRINCIPAL PUBLIC OFFERING OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount	Description	Price To Public	Underwriting Spread	Offering Yield	Moody Rating	Indicated Success of Offering
<i>Mortgage Bonds</i>							
6/7	\$ 1.5	Hartford Gas Conv. Deb. 3½s, 1965 ..	100.00	*	3.25%	—	
6/8	25.0	Virginia Elec. & Power 1st 3½s, 1985	100.96	.38C	3.20	Aa	a
6/22	15.0	Oklahoma Gas & Electric 1st 3½s, 1985	100.96	.55C	3.20	Aa	a
6/8	4.0	Central Illinois E.&G. 1st 3½, 1985 ..	101.42	.53C	3.30	A	b
<i>Preferred Stocks</i>							
6/9	6.0	Southwestern G. & E. 4.28%	101.90	1.50C	4.20	—	d
6/15	20.0	Tennessee Gas Transmission 4.90%**	100.00	3.00N	4.90	—	a
<i>Common Stocks—Subscription Offerings</i>							
6/2	31.0	Consolidated Natural Gas	31.00	*	4.84	9.62	a
6/3	14.0	Peoples Gas Light & Coke	140.00	*	5.00	8.62	a
6/6	10.6	Public Service of Colorado	38.50	.23N	4.68	6.54	a
6/8	17.4	Baltimore Gas & Electric	30.25	.17N	5.29	6.67	a
6/10	9.1	Kansas City P. & L.	37.00	.25N	4.87	6.25	a
6/29	5.1	Mountain Fuel Supply	25.50	.32N	3.92	6.06	—

C—Competitive. N—Negotiated. a—Reported well received. b—Reported fairly well received. d—Reported that issue sold slowly. *—No underwriting. **—Sinking fund of 2½ per cent annually 1961-70, 5 per cent thereafter.

NEW-MONEY FINANCING

	Month of June, 1955				Total 1st Half	
	Offered to Stockholders	Sold to Public	Sold Privately	Total	1955	1954
<i>Electric Utilities</i>						
Bonds	—	\$44	\$14	\$58	\$776	\$532
Preferred Stock	—	6	2	8	190	102
Common Stock	\$38	—	—	38	252	179
Total	\$38	\$50	\$16	\$104	\$1,218	\$813
<i>Gas Utilities</i>						
Bonds	\$ 2	—	\$21	\$23	\$469	\$190
Preferred Stock	—	9	—	9	11	23
Common Stock	44	—	—	44	24	94
Total	\$46	\$9	\$21	\$76	\$504	\$307

Source of data—Irving Trust Company.

PUBLIC UTILITIES FORTNIGHTLY

explosion. Installation cost would be in the neighborhood of \$1,000-\$1,500, it was claimed.

Effect of Dividend Pay-out on Prices of Electric Utility Common Stocks

THE corporate finance department of Ebasco Services a few months ago issued an interesting 21-page brochure, entitled "A Discussion Emphasizing the Important Effect of the Dividend Pay-out on Values of Common Stocks of Electric Utility Companies." The corporate finance department of Ebasco has for many years advised its client companies that higher common stock dividend pay-outs mean higher common stock market values, and the study points out that companies which increased their dividend rates "have generally received better values for any common stock sold during these years."

However, the policy of paying a more liberal dividend has been more pronounced among those companies whose common stocks are classified as medium-grade. Among the higher-grade companies many have had common stock outstanding with the public over a long period of years and were already accustomed to a rather liberal dividend pay-out. On the other hand, most of the newer utility companies emerged from holding company breakups during the past ten years, and many of these companies initially adopted a very conservative pay-out policy. However, the latter companies have shown a steady increase in average pay-out, while the average for the high-grade group has remained fairly constant.

In studying the effects of dividend pay-

out percentage in evaluating common stocks of electric utilities, the corporate finance department has developed what is known as the Ebasco value-graph. This is intended to provide a medium by which a pattern of market appraisals of similar utility stocks can be observed and compared. The tabular method of comparing similar utility stocks, by simple comparison of price-earnings ratios and yields, is unsatisfactory. Where pay-out is quite low, the price-earnings ratio also tends to be low, with the yield also below average.

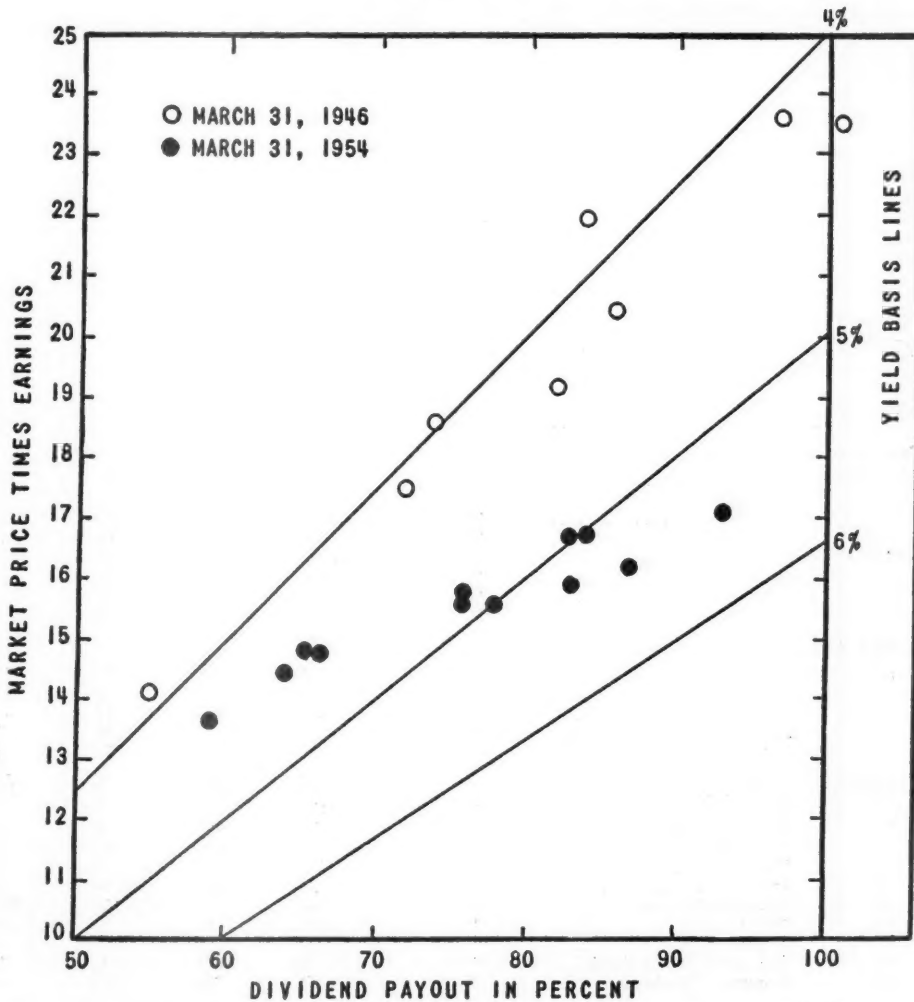
From the corporation standpoint it is desirable to have the stock sell as high as possible in relation to earnings, to obtain the best results in equity financing. The accompanying Ebasco chart shows the pattern of market ratios on twelve high-grade electric utility common stocks in 1954 compared with 1946 and demonstrates the importance of relatively high pay-out. The chart shows that as 1954 pay-out increases (solid dots) the P-E ratio and the yield both improve.

In the year 1946 (light dots) the dividend pay-out factor had a still greater effect on the P-E ratio than in 1954. However, in 1946 common stocks of this quality sold more on a yield basis—they tended to follow the 4 per cent yield line—while in 1954 higher pay-outs resulted in more moderate improvement in price-earnings ratios and yields.

The Ebasco study also approaches the problem in another manner. It presents charts showing (1) the percentage increases in market price as compared with the increase in the dividend rate; and (2) the relation of earnings increases to price increases. Group results were as shown in the table below.

	20 High-grade Stocks	20 Medium-grade Stocks
Per Cent Increase in Share Earnings	26%	14%
Per Cent Increase in Dividends	32	47
Per Cent Increase in Price	34	65

CHART PATTERN OF MARKET RATIOS
HIGH GRADE ELECTRIC UTILITY COMMON STOCKS
1954 COMPARED WITH 1946



Source—Ebasco Service Incorporated

PUBLIC UTILITIES FORTNIGHTLY

THE Ebasco-value-graph is an interesting and useful device but it does not take into account the recent importance of the growth factor in evaluating electric utility common stocks. This has become increasingly important in the past year or so, with the market action faintly reminiscent of 1929 when the growth idea was applied more indiscriminately. Thus, in appraising stocks today it is necessary not merely to recognize different quality

groups and the effects of dividend pay-out but also to recognize and study the growth factor.

The growth factor lays primary emphasis on the past and current rate of increase in share earnings (not merely the gain in revenues) and less on dividend pay-out. In this respect it goes counter to the Ebasco study, since many of the growth stocks are characterized by low dividend pay-outs and very high P-E



ELECTRIC UTILITY STATISTICS AND RATIOS

	Unit	Latest Month	Latest 12 Mos.	Per Cent Increase Latest Month	Latest 12 Mos.
Operating Statistics					
Output KWH—Total (April)	Bill. KWH	42.0	491.9	14%	9%
Hydro-generated	"	10.5	—	6	—
Steam-generated	"	31.5	—	17	—
Capacity (March)	Mill. KW	104.9	—	13	—
Peak Load (December)	"	85.6	—	9	—
Fuel Use (March) Coal	Mill. Tons	10.1	—	17	—
Gas	Mill. MCF	92.8	—	2	—
Oil	Mill. Bbls.	5.7	—	19	—
Coal Stocks	Mill. Tons	40.1	—	D8	—
Customers, Sales, Revenues, and Plant (March)					
KWH Sales—Residential	Bill. KWH	7.6	82	13	12
Commercial	"	5.1	61	9	11
Industrial	"	14.5	158	17	3
Total, Incl. Misc.	"	34.6	385	14	6
Customers—Residential	Mill.	33.6	—	3	—
Commercial	"	4.9	—	2	—
Industrial	"	.3	—	4	—
Total, Incl. Others	"	40.9	—	3	—
Income Account—Summary (March)					
Revenues—Residential	Mill.	205	2,273	11	10
Commercial	"	135	1,614	8	11
Industrial	"	154	1,741	12	—
Total, Incl. Misc. Sales	"	577	6,171	10	7
Sales to Other Utilities	"	38	443	12	5
Misc. Income	"	32	245	23	20
Expenditures—Fuel	"	87	991	8	D2
Labor	"	105	1,223	4	5
Misc. Expenses	"	85	968	9	6
Depreciation	"	57	643	12	12
Taxes	"	132	1,469	16	10
Interest	"	35	402	9	9
Amortization, etc.	"	—	—	NC	NC
Net Income	"	108	1,167	14	11
Preferred Div.	"	14	148	8	5
Bal. for Common Stock	"	94	1,019	16	12
Common Dividends	"	56	723	D13	8
Electric Utility Plant (March)					
Reserve for Depreciation and Amort.	"	28,607	—	10	—
Net Electric Utility Plant	"	5,420	—	8	—
		23,186	—	10	—

D—Decrease. NC—Not comparable.

FINANCIAL NEWS AND COMMENT

ratios. The accompanying table gives a list of some of these issues. This group should, therefore, be recognized as an exception. For the great majority of the 135 electric utility stocks, the pay-out principle seems to apply.

Secretary of Commerce Weeks Urges Higher Utility Earnings

SECRETARY of Commerce Weeks, in a recent talk before the Mountain Pacific States Conference of Public Service Commissions at Reno, urged that regulatory commissions adopt a more liberal attitude toward the treatment of stockholders. He pointed out that technological advance in research is increasing, with improvements and economies being developed at an ever-accelerating pace.

Industrial companies can take this in their stride because greater efficiency means greater profits as a rule. But the profits of the utilities are limited by regulation. Mr. Weeks remarked:

The question that arises at this time and in the light of conditions which we shall face in the future is whether a rate is reasonable if it does not stimulate research to the fullest possible extent, does not recognize obsolescence, and does not encourage the rapid devel-

opment and use of equipment which can increase efficiency and cut costs.

In my judgment, it is not only possible but almost surely probable that, in the regulated industries, the rates to the public would be lower and the service better if the return on investments were higher and the stimulation to progress were thereby greater. It seems to me this possibility deserves study and experimentation.

Central & South West Corporation

IN the previous issue, page 41, Central & South West Corporation was inadvertently omitted from the table, "Per Cent of Common Stocks of Leading Utilities Held by Institutions, December, 1954," the data being taken from the staff report to the Fulbright Committee. Eighteen per cent of the common stock of this company is institutionally held.

Another table in the Fulbright staff report (page 187) shows that 110,581 shares are held by 46 colleges, 12,500 shares by the Rockefeller and Carnegie foundations, 529,571 shares by insurance companies, and 976,600 shares by investment trusts.

TEN ELECTRIC UTILITY "GROWTH STOCKS"

	Yield	P-E Ratio	Pay-out	Common Stock Equity	Moody Bond Rating
Houston Lighting & Power	2.9%	18.7	55%	40%	Aa
Texas Utilities	3.1	18.8	59	37	—
Florida Power & Light	2.7	19.7	53	35	A
Florida Power Corp.	3.7	19.1	71	30	A
Tampa Electric	3.5	18.9	67	36	Aa
Central & South West	3.7	18.7	69	33	—
Gulf States Utilities	4.2	17.1	73	30	Aa
Idaho Power	3.9	15.6	60	35	Aa
Arizona Public Service	3.8	17.4	66	28	—
Tucson G.E.L. & P.	3.4	17.4	59	40	—
<i>Aver. for Growth Stocks</i>	3.5%	18.1	63%	34%	
<i>Aver. for All Elec. Utilities</i>	4.7%	15.7	72%	—	

PUBLIC UTILITIES FORTNIGHTLY

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

1954 Rev. (Mill.)		6/29/55 Price About	Divi- dend Rate	Approx. Yield	—Share Earnings*—			Price- Earnings Ratio	Div. Pay- out	Approx. Com. Stock Equity	
					Cur- rent Period	% In- crease	12 Mos. Ended				
Pipelines											
\$ 14	O	East. Tenn. Nat. Gas	10	\$.60	6.0%	\$.54	35%	Mar.	18.5	111%	13%
44	S	Mississippi Riv. Fuel	29	1.40	4.8	1.45	21	Mar.	20.0	97	54
48	S	Southern Nat. Gas	34	1.60	4.7	1.78	D15	Mar.	19.1	90	26
143	O	Tenn. Gas Trans.	37	1.40	3.8	1.95	NC	Apr.	19.0	72	20
150	O	Texas East. Trans.	28	1.40	5.0	1.74	NC	Mar.	16.1	80	21
68	O	Texas Gas Trans.	22	1.00#	4.5	1.65	6	Mar.	13.3	61	28
63	O	Transcont. Gas P. L.	29	1.40	4.8	2.11	17	Dec.	13.7	66	21
Averages				4.6%				16.4	77%		
Integrated Companies											
\$122	S	American Nat. Gas	52	\$2.20	4.2%	\$3.66	11%	Mar.	14.2	60%	33%
30	O	Colo. Interstate Gas	62	1.25	2.0	2.69	42	Mar.	23.0	46	29
260	S	Columbia Gas System ...	164	.90	5.5	1.10	49	Mar.	15.0	82	42
9	O	Commonwealth Gas	8	(a)	4.0a	.55	15	Dec.	14.5	—	69
10	A	Consol. Gas Util.	13	.75	5.8	.89	D25	Jan.	14.6	84	59
213	S	Consol. Nat. Gas	34	1.50	4.4	2.98	25	Mar.	11.4	50	64
144	S	El Paso Nat. Gas	47	2.00	4.3	1.92	D36	Mar.	—	104	22
34	S	Equitable Gas	28	1.40	5.0	1.90	3	Mar.	14.7	74	36
12	O	Kansas-Neb. Nat. Gas ..	36	1.20	3.3	1.30	D24	Dec.	—	92	31
78	S	Lone Star Gas	32	1.40	4.4	1.89	4	Mar.	16.9	74	42
22	S	Montana-Dakota Utils. ..	28	1.00	3.6	1.48	21	Mar.	18.9	68	31
18	O	Mountain Fuel Supply ..	27	1.00	3.7	1.42	4	Dec.	19.0	70	55
64	A	National Fuel Gas	21	1.00	4.8	1.45	13	Mar.	14.5	69	58
89	S	Northern Nat. Gas	42	2.00	4.8	3.13	36	Mar.	13.4	64	32
37	S	Oklahoma Nat. Gas	24	1.20	5.0	1.67	31	Apr.	14.4	72	32
87	S	Panhandle East. P. L. ..	77	3.00#	3.9	4.09	NC	Mar.	18.8	73	33
10	O	Pennsylvania Gas	26	1.00	3.8	1.79	126	Dec.	14.5	56	77
146	S	Peoples Gas Lt. & Coke ..	159	7.00	4.4	11.07	D1	Mar.	14.4	63	36
27	O	Southern Union Gas	23	1.00	4.3	1.33	39	Dec.	17.3	75	34
215	S	United Gas Corp.	32	1.50	4.7	1.99	D5	Mar.	16.1	75	42
Averages				4.3%				15.9	71%		
Retail Distributors											
\$ 23	A	Alabama Gas	31	\$1.28	4.1%	\$1.90	24%	May	16.3	67%	43%
42	A	Ark. Louisiana Gas	17	.50	2.9	.49	D27	Mar.	—	102	49
36	O	Atlanta Gas Light	26	1.20	4.6	2.16	48	Dec.	12.0	56	36
46	S	Brooklyn Union Gas	34	1.80	5.3	2.59	8	Mar.	13.1	69	46
29	O	Central Elec. & Gas	16	.80	5.0	1.35	23	Mar.	11.9	59	16
10	O	Central Indiana Gas	16	.80(b)	5.0	1.20	90	Mar.	13.3	67	62
51	O	Gas Service	26	1.36	5.2	2.00	24	Mar.	13.0	68	39
6	O	Hartford Gas	40	2.00	5.0	2.97	NC	Feb.	13.5	67	52
14	O	Houston Nat. Gas	24	1.00	4.2	2.15	6	July	11.2	47	22
14	O	Indiana Gas & Water ..	17	.70	4.1	1.29	13	Apr.	13.2	54	46
6	A	Kings Co. Lighting	15	.80	5.3	1.12	D12	Mar.	13.4	71	27
38	S	Laclede Gas	13	.60	4.6	.98	7	Apr.	13.3	61	37
31	O	Minneapolis Gas	27	1.30	4.8	1.62	20	Mar.	16.7	80	40
13	O	Mississippi Valley Gas ...	20	1.00(d)	5.0	1.62	11	Mar.	12.3	62	29
8	O	Mobile Gas Service	24	.90	3.8	1.59	2	Mar.	15.1	57	31
7	O	New Haven Gas	31	1.60	5.2	2.58	38	Dec.	12.0	62	64
9	O	New Jersey Nat. Gas ..	23	1.00E	4.3	1.87	201	Dec.	12.3	53	26
62	O	North. Illinois Gas	20	.80	4.0	1.19	NC	Apr.	16.8	67	48
183	S	Pacific Lighting	40	2.00	5.0	2.88	45	Mar.	13.9	69	39
12	O	Pioneer Natural Gas	28	1.32	4.7	1.65	NC	Mar.	17.0	80	47
12	O	Portland Gas & Coke ..	28	.90	3.2	1.72	D8	Mar.	16.3	52	45
8	A	Providence Gas	10	.48	4.8	.52	27	Dec.	19.2	92	62
6	O	Seattle Gas	17	.40	2.4	.66	D14	Mar.	—	61	60
8	O	South Jersey Gas	25	1.20	4.8	1.62	17	Feb.	15.4	74	52
23	S	United Gas Improvement	37	2.00	5.4	2.11	D5	Mar.	17.5	95	63
33	S	Washington Gas Light ..	42	2.00	4.8	2.91	40	Mar.	14.4	69	38
Averages				4.6%				14.6	68%		

FINANCIAL NEWS AND COMMENT

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER UTILITIES

1954 Rev. (Mill.)			6/29/55 Price About	Divi- dend Rate	Approx. Yield	—Share Earnings*—			Price- Earnings Ratio	Div. Pay- out	Approx. Com. Stock Equity
Communications Companies											
Bell System											
\$4,784	S	Amer. T. & T. (Cons.) ..	183	\$9.00	4.9%	\$12.10**	3%	Feb.	15.1	74%	65%
220	A	Bell Tel. of Canada	50	2.00	4.0	2.43	5	Dec.	20.6	82	62
37	O	Cin. & Sub. Bell Tel.	87	4.50	5.2	5.16	26	Dec.	16.9	87	100
163	A	Mountain Sts. T. & T. ...	139	6.60	4.7	7.71	11	Mar.	18.0	86	73
259	A	New England T. & T. ...	139	8.00	5.8	7.83	6	Mar.	17.8	102	54
632	S	Pacific Tel. & Tel.	144	7.00	4.9	9.29**	21	Feb.	15.5	75	56
81	O	So. New England Tel. ...	44	2.00	4.5	2.18	8	Dec.	20.2	92	68
Averages					4.9%				17.7	85%	
Independents											
\$ 11	O	Calif. Water & Tel.	19	\$1.00	5.3%	\$1.56	8%	Apr.	12.2	64%	36%
12	O	Central Telephone	19	.90	4.7	1.72	24	Apr.	11.0	52	23
35	O	Continental Tel.	26	1.00	3.8	2.10	36	Dec.	12.4	48	23
3	O	Florida Telephone	18	.80	4.4	1.07	40	Dec.	16.8	75	41
143	S	General Telephone	56	1.92	3.4	3.21**	18	May	17.4	60	34
5	O	Inter-Mountain Tel.	15	.80	5.3	.92	26	Dec.	16.1	86	64
17	S	Peninsular Tel.	42	1.80	4.3	2.52	17	Mar.	16.7	71	41
16	O	Rochester Tel.	19	1.00	5.3	1.39	18	Mar.	13.7	72	31
7	O	Southwestern Sts. Tel. ...	21	1.00	4.8	1.31	20	Apr.	16.0	76	34
24	O	United Utilities	23	1.20	5.2	1.57**	D3	Mar.	14.6	71	35
10	O	West Coast Telephone ..	19	1.00	5.3	1.24	4	Apr.	15.3	81	42
222	S	Western Union Tel.	26	1.00	3.8	1.89**	12	Dec.	13.8	53	80
Averages					4.6%				14.7	67%	
Transit Companies											
\$ 27	A	Capital Transit	10	\$.80	8.0%	\$.75	D23%	Mar.	13.3	107%	82%
13	O	Cincinnati Transit	5	.30	6.0	.13	D86	Dec.	—	231	41
9	O	Dallas Ry. & Terminal ..	13	1.40	10.8	2.21	21	Dec.	5.9	63	71
227	S	Greyhound Corp.	16	1.00	6.3	1.40	19	Mar.	11.4	71	82
25	O	Los Angeles Transit	16	1.00	6.3	.99	D21	Dec.	16.2	99	87
29	S	Nat'l. City Lines	23	1.40	6.1	2.76	17	Dec.	8.3	51	88
73	O	Phila. Transit	14	.30	2.1	Deficit	—	Dec.	—	—	24
7	O	Rochester Transit	4½	.40	8.9	.44	D23	Dec.	10.2	91	38
25	O	St. Louis P. S.	15	1.40	9.3	.79	D35	Dec.	19.0	177	90
17	S	Twin City R.T.	17	1.60	9.4	Deficit	—	Dec.	—	—	41
23	O	United Transit	5	—	—	.53	D28	Dec.	9.4	—	44
Averages					7.3%				11.7	111%	
Water Companies											
Holding Companies											
\$ 34	S	American Water Wks. ..	10	\$.50	5.0%	\$.87	D4%	Mar.	11.5	57%	16%
4	O	N. Y. Water Service	60	.80	1.3	1.76	30	Mar.	—	45	32
Operating Companies											
\$ 4	O	Bridgeport Hydraulic ...	31	\$1.60	5.2%	\$1.49	D5%	Dec.	20.8	107%	53%
11	O	Calif. Water Service	41	2.20	5.4	2.45	D1	May	16.7	90	29
8	S	Hackensack Water	44	2.00	4.5	3.26	D8	Dec.	13.5	61	41
5	O	Jamaica Water Supply ..	40	1.80	4.5	2.98	9	Mar.	13.4	60	22
4	O	New Haven Water	57	3.00	5.3	4.42	76	Dec.	12.9	68	58
6	O	Phila. & Sub. Water	36	1.00(c)	2.8	2.45	—	Dec.	14.7	41	22
9	O	Scranton-Springbrook ...	20	.90	4.5	1.30	D4	Mar.	15.4	69	31
Averages					4.6%				15.9	75%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. *Earnings are calculated on present number of shares outstanding, except as otherwise indicated. **On average shares. #—A 2 per cent stock dividend was also paid December 31, 1954, and in previous year. (a)—Paid 4 per cent stock dividend. (b)—Paid 10 per cent stock dividend. (c)—Paid 5 per cent stock dividend. (d)—Paid 25 per cent stock dividend. NC—Not comparable. E—Estimated.



What Others Think

High Lights of the EEI Convention

A NOTEWORTHY function of the annual convention of the Edison Electric Institute, over the years, has been to increase public understanding of the important rôle played by the investor-owned electric industry in the nation's economy. The fact that the industry is still under attack from many quarters, and needlessly handicapped by discriminatory legislation, led most convention speakers, during the institute's twenty-third session of this year, to ask both for more public confidence and for increased legislative support. But as Harold Quinton, president of the institute and the Southern California Edison Company, pointed out on the eve of the convention, the industry has made some significant gains in recent years.

"The investor-owned electric industry today is strong, progressive, and backed by the greatest reservoir of public confidence we have ever had." It is "building to meet anticipated demands for electricity of ever-increasing magnitude," he said. The industry has reached a 10 billion kilowatt-hour week, and in the next ten years, he predicted, the output of the nation's electric power companies will double again.

In his opening speech, Mr. Quinton told the 1,500 utility executives who had gathered in Los Angeles for four days of convention sessions, June 13th-16th, that they

should strive for corrective laws to abolish tax exemptions granted governmental power agencies, preferences to public agencies and co-operatives in the sale of power, and "the needlessly costly and burdensome duplicate regulation by federal government agencies on top of regulation by state government agencies." In all of those things, the utility executive stated, "we are concerned not in the interests of greater profits to the companies, but to secure the lowest possible cost of electricity to their customers."

QUINTON said tax inequalities and exemption of government businesses from taxation have led uninformed people to assume—because governmental businesses sell their products at lower prices—that a government-operated system is better than an investor-owned system. Therefore, he said, they think the government should go further into business as a means of holding down the cost of living. Taxation drives the average family to demand that the government do more and more things for it and creates a pressure pushing the government deeper into all business, including electric power, though the cost of electricity represents but one per cent of the cost of living. Too few persons realize, the utility executive asserted, that a 4 per cent tax cut would save the

WHAT OTHERS THINK

average family more than the cost of its entire electric bill.

Quinton urged four legislative steps "to bring tax equality to customers of all power systems." These were:

1. All federal power projects should be required by statute to include as part of the project and part of the operating costs such sums as would be payable as taxes by private enterprise carrying on the same or similar business. The portion of such sums as would be equivalent to federal taxes should be paid into the federal treasury.

2. Federal power projects . . . should be made subject to state and local taxation the same as other property and business . . .

3. The tax exemption presently enjoyed by the proprietary power business of states, municipalities, public utility districts, and other governmental proprietary businesses should be removed.

4. The tax exemption on the income from securities issued to finance such governmental power businesses should be removed; or the same exemption extended to income from securities of all businesses.

ON preference privileges, the EEI president said their value "arises entirely from the fact that the federal government generally sells its products far below true cost." What the consumer is not charged, all taxpayers must make up, to balance out the cost. "It should be clear by now," he continued, "that there is no magic by which the government can produce and distribute electric power at any lesser cost than it can be done by private enterprise."

The utility president declared:

. . . power [should] be sold at the point of generation at its fair market value . . . and the federal government,

in the interest of all taxpayers, should be required to compute its true cost of power, including the full cost of money and the full equivalent of federal and local taxes. Where the cost of government power would then exceed its market value, Congress should be periodically informed of the losses of those particular projects.

As to regulation of the industry, Quinton stated:

If the principle that there shall be no unnecessary duplicate regulation is accepted, there remains practically no reason for licenses for the use of government lands or navigable waters to be concerned with anything more than bona fide conditions which relate solely to the use of such lands or to the operation of substantial, not theoretical or inconsequential, navigation. Such conditions would protect the public interest, expedite licenses, and simplify their administration.

In another first day convention speech, R. G. Rinchliffe, president of Philadelphia Electric Company, described what he termed "the world's largest and most efficient turbine generator," a 325,000-kilowatt unit that will produce 3,450 kilowatt-hours of electricity per ton of coal when it is installed in a new power station which Philadelphia Electric is now building. Steam in the station will be used at record "supercritical" pressure of 5,000 pounds per square inch and temperature of 1,200 degrees Fahrenheit.

It was natural that the partnership power policy of the present administration in the field of electric power should come up for comment and evaluation during the convention. During the second day's session, it was discussed in speeches by James B. Black, chairman of the Pacific Gas and Electric Company, and Kinsey M. Robin-

PUBLIC UTILITIES FORTNIGHTLY

son, chairman and president of the Washington Water Power Company. Both endorsed the policy. Mr. Black, whose company has suggested a co-operative proposal, now before Congress, for the development of the Trinity river project in California, said that partnership principles are not "something new and strange," but "wholly in the American tradition. If they need to be spelled out by the President, it is only because the nation has strayed so far from its historic path. . . . Government as a partner enlarges and strengthens the abilities of its citizens. Government as a remote and bureaucratic overseer can only weaken and subject its citizens to a demoralizing control," he added. "It is not a coincidence that the only areas of potential power scarcity in the United States are those in which government has assumed to itself a dominant rôle."

MR. ROBINSON also referred to the basic resources program outlined by President Eisenhower in his State of the Union message last January. "It is a real stimulus to prosperity," he said, and differs from the power policy of Democratic administrations which "advocated by word and deed nationalization of electric power." The administration's policy, he said, includes states, local communities, private citizens, and the federal government, all working together. "The job to be done is so great that all are urged to participate—it is not a policy of monopoly by any one group."

"With the entire Northwest facing serious need for power," Mr. Robinson stated, "it is most baffling to understand why small political blocs and others try so desperately to destroy private incentive. These adverse groups prove conclusively by words and deeds through the well-publicized Hell's Canyon circus and other examples of obstruction and delay that

they would prefer to have no power at all rather than have it developed by private enterprise."

Both Mr. Black and Mr. Robinson made strong arguments for private initiative in power development in their respective states. Observing that "in California there has been no real grass-roots demand for the federal government to go into the commercial power business," Mr. Black said that the partnership proposal for development of the Trinity river as part of the Central Valley project, made to the Bureau of Reclamation, would save the federal taxpayers \$50,000,000 initially in capital outlay, while the company "would pay \$3,500,000 a year for the falling water" and would "develop half again as much power capacity as the bureau proposes to build." The company, he said, would pay federal taxes of \$1,400,000 and state and local taxes totaling \$1,300,000 a year.

THE example of the partnership principle cited by Mr. Robinson was the recent proposal, now before Congress, to authorize the John Day dam on the Columbia river. Though the U. S. government would retain title to the development, and Army Engineers would do the actual construction, it proposed that three private power companies, and any others who care to participate, should advance \$273,000,000 of the total estimated cost of the \$310,000,000 project. According to Mr. Robinson, the plan offers "a sensible, definite, and practical way to get new projects under construction without loss of time. In addition, huge amounts of money can be saved the taxpayer. It is estimated that within six or seven years, under this arrangement, power from John Day would add to the supply of the Northwest Power Pool, and within a period of eight or nine years the entire 1,105,000 kilowatts would be available."

WHAT OTHERS THINK

THE utility executive said that taxes paid by the organization representing the companies over a 50-year period would be two or three times the money put up by the government for the project's nonreimbursable navigation and flood-control features, and that "participating companies would recover their investment by power supplied from the project over a 50-year period. Because this proposed project would utilize the fullest concept of partnership," he said, "and because it does not violate the comprehensive approach to the region's water resources program . . . it should receive full support from reasonable minds."

Other speakers on the second convention day covered various phases of the industry's operations. Elmer L. Lindseth, president of The Cleveland Electric Illuminating Company, told the convention that rehabilitation of substandard housing could mean tremendous gains in electrical sales. Of the nation's 50,000,000 homes, Mr. Lindseth claimed "only 7,000,000 are in first-class condition. The remaining 43,000,000 are in some degree substandard. Eight million are actually in slum or near-slum condition." Electrically speaking, he said, the vast majority is obsolete when measured against the living standard modern appliances make possible. Over 40,000,000 homes are poorly lighted, and 21,000,000 do not even have wiring that allows use of such improvements as electric ranges, clothes dryers, water heaters, and better lighting.

C. A. Tatum, Jr., president of Dallas Power & Light Company, told the delegates that air conditioning is setting off "a revolution in the living habits of the American people," and that this soon would affect almost every utility in the United States. "We are beginning to see a spreading of air conditioning beyond the so-called 'hot areas,'" Mr. Tatum said,

pointing out that in 1954, 37 per cent of total room air-conditioner sales were made in the relatively cool Middle Atlantic and East North Central regions, as against 18 per cent in 1950.

H. C. McCLELLAN, president of Old Colony Paint & Chemical Company, returned to political subjects in an address strongly urging the industry to join forces in the battle against government competition. It "is also important," he said, "to voice approval when constructive action is taken . . . we must support the administration when it moves in the right direction with the same vigor that we voice our objections, when it moves in the wrong direction."

Regulation of the industry was the subject of a talk by Richard J. Smith, partner, Whitman, Ransom & Coulson, a New York city law firm. He said that if "by act of Congress, the Federal Power Commission would be required to exempt from its regulatory authority" those electric companies meeting the concept of a business "essentially local in character," then the problem of competing federal and state regulation might be solved. "Under such a legislative scheme," Mr. Smith stated, "it would be possible to provide a truly integrated system of regulation under which there would be rendered to the national government spheres of control supplementary to and consistent with state regulation of local utilities. The scheme would have sufficient flexibility to be adaptable to the changing technology of the industry, but it would be explicit enough in its statutory procedure to compel the attention of the federal agency to the intent of Congress and to the reality of an increasingly efficient and comprehensive system of state regulation."

Technological advance in the electric power industry and the development of

PUBLIC UTILITIES FORTNIGHTLY

large corporate organizations "gave impetus to the drive" for federal control, Mr. Smith asserted. During the early period of federal and state regulation in the United States, "it was generally conceded that the control of what were known as 'local' utilities—that is, those engaged in providing gas, electric, water, and trolley service—was exclusively a function of the individual state." But in the 1927 "Attleboro Case" (Public Utilities Commission *v.* Attleboro Steam & Electric Co. 273 US 83, PUR1927B 348), which concerned a rate dispute between a Rhode Island electric company and one in Massachusetts over power the former was selling to the latter, the U. S. Supreme Court overthrew a decision of the Rhode Island Public Service Commission, on grounds that the two companies were engaged in interstate commerce. The disputing companies "brought about a decision of the Supreme Court which was to become the watchword of the proponents of extended federal control . . ." Mr. Smith noted that the Federal Public Utility Holding Company Act of 1935 was an outgrowth of the Attleboro Case, but "even then with the trend for centralized economic control at its zenith, the new federal statute still was viewed as a supplement to, rather than a substitute for, state control. It was proposed simply for the purpose of closing the 'Attleboro' gap in regulation."

SUBSEQUENTLY, in the administration of the act, the Federal Power Commission had a habit of ignoring "the underlying thesis that the act was merely to supplement state regulation," Mr. Smith said. He suggested that federal regulatory agencies should limit their jurisdiction to those spheres which are not "essentially local in character." Under this proposed solution to the problem of overlapping regulation, the Federal Power Commis-

sion could deny exemption from its regulatory authority only "on the basis of a supervening national public interest plainly established on the record after a hearing."

Also on the program of the convention was an appraisal of the industry's response to the Atomic Energy Commission's request for industrial participation in the development of atomic energy for commercial use. Edgar H. Dixon, president of Middle South Utilities, Inc., and chairman of the EEI committee on atomic energy, told the convention that, since February, investor-owned electric utilities have submitted proposals to AEC to build and finance atomic-fueled electric generating stations, which will probably cost the utilities an initial outlay of \$180,000,000. Characterizing as "outstanding" industry's response to the AEC's industrial participation program, Mr. Dixon reminded his listeners that it has been "less than ten months since the new law permitted this private participation and that even to this day we do not know all the rules . . ." The task of atomic power development "has only begun," Mr. Dixon continued, and "we must continue to demonstrate to the people of this country that our traditional private enterprise system is still the best and most effective way to get this job done."

In discussing proposals made this year, Mr. Dixon mentioned four utility nuclear projects: a 235,000-kilowatt station is being planned by Consolidated Edison Company of New York, which will cost about \$55,000,000; a 180,000-kilowatt station in the Chicago area, to be constructed for \$45,000,000 by a co-operating group, including six utilities; a 100,000-kilowatt plant in the Detroit area, to be built by ten electric companies for \$54,000,000; and a 100,000-kilowatt project proposed for construction in western Massachusetts,

WHAT OTHERS THINK



"ALBERT ALWAYS COMES TO THE BACK DOOR. HE READS METERS FOR THE LIGHT COMPANY"

at an estimated cost of \$20-25,000,000, by the Yankee Atomic Electric Company, a company formed by New England electric utilities supplying 90 per cent of the electric requirements of the six New England states.

MR. DIXON cautioned the industry that it should "expect continuing all-out efforts of the federalizers to return the atom to the province of the government. Their efforts are unrelenting, and they are ever critical of private endeavors. In

one breath they criticize industry for its 'reluctance' to accept the challenge of private development. In the next breath they criticize those companies which have made proposals because they don't feel the companies have studied the problems thoroughly enough." On the other hand, Mr. Dixon emphasized that the electric industry was not going to wait to build power reactors until the technology had advanced to such a point that nuclear power was as cheap as power from conventional plants. With nuclear power costs inevita-

PUBLIC UTILITIES FORTNIGHTLY

bly coming down, he said, "nuclear power should become a dynamic force, coming into ever-increasing use as it begins to approach the cost of conventional power in the various areas of the country."

OTHER speakers dwelt on specific problems faced by the infant atomic industry. Philip A. Fleger, chairman, Duquesne Light Company, reporting on progress of the new Shippingport, Pennsylvania, atomic power plant, stated that large-scale construction is about to get under way. The nuclear part of the plant is being designed and constructed by Westinghouse Electric Corporation under contract with the AEC. Duquesne Light is building the turbine-generator portion and will operate the entire plant as an integral part of its system. The Shippingport project was described by Mr. Fleger as a university for the electric power industry of this country and the world. AEC was said to be declassifying information concerning the project as rapidly as security requirements would permit, so that the comprehensive educational program could proceed.

Dr. Lawrence R. Hafstad, director of the atomic energy division of The Chase Manhattan Bank, indicated that progress was being made on the thorny problem of insurance adequate to cover atomic enterprises. There has been enough experience with reactors, he said, so that insurance companies through normal channels will be able to give insurance for what are normal small risks, the incidental hazards to operating reactors. "It is conceivable, of course, that you can have a large accident in which the total liability would be very large," he said. "This kind of risk needs and requires the broadest possible base and it seems to me the way to get the broadest base would be for the government in this case to reinsure the insurance companies in some manner similar

to that of the War Risk Insurance Act."

J. Carlton Ward, Jr., president of the Vitro Corporation of America, addressed the convention, using slides for illustration, on "a very difficult phase" of atomic development, "The Economics of Feed Materials and Fuel Processing Problems."

ON the final day of the convention, Louis V. Sutton, president of Carolina Power & Light Company, warned the industry that the number of groups "devoted to socializing" the investor-owned electric utilities is increasing and urged it to step up efforts "to fight for its rights and tell its story to the public." He said that the lobbies of government power advocates in Washington "are becoming more and more active," and cited a report by the clerk of the House of Representatives that the National Rural Electric Cooperative Association "spent more money during the first three months this year 'in connection with its legislative interests' than any other agency in the long list of registered lobbyists."

There is "unmistakable evidence," however, that the American people "are seeing through some of the political and socialistic attacks on our industry's magnificent record of achievement," Mr. Sutton maintained. But he urged that the industry not rely on "pointing to past achievements" to win public support. He said:

The future of our industry lies in the minds of its management and in the vigor with which we pursue plans which public opinion holds to be right. We can no longer adhere to the old adage regarding the building of a better mouse trap. We have built a record which is unmatched in American industry. That record justifies public support, but to say we will win it presupposes intensified effort on a united front.

Our first job is to operate our busi-

WHAT OTHERS THINK

nesses as fairly and as soundly as we can. Our second responsibility is to tell and retell the advantages offered by our investor-owned electric light and power industry and our American free enterprise system.

Other convention speakers were Philip Sporn, president of American Gas & Electric Company, on the subject "Movement of Power," and Dr. George C. S. Benson,

president of Claremont Men's College of Claremont, California, and research director, Commission on Intergovernmental Relations, on the question: "Is the Federal Government Taking over the States?"

It was announced that Harllee Branch, Jr., president and director of the Georgia Power Company, Atlanta, Georgia, had been elected president of the Edison Electric Institute to succeed Mr. Quinton.

Survey of Utility Losses Due to Bad Handwriting

PPRIVATE and public utilities throughout the nation are spending thousands of dollars yearly to combat wasteful use of gas, electricity, and water. Yet, the utilities themselves are wasting hundreds of thousands of dollars pouring ink down drains.

The utilities are not pouring ink away literally, of course. But a survey of 1,000 utility companies completed last month, by the Handwriting Foundation, Inc., reveals that—incredibly—bad penmanship presents a serious problem of waste right inside the companies themselves.

Employees are scribbling important information illegibly, and one utility in New York state, for instance, estimates it is losing up to \$5,000 a year. A midwestern phone company reported that until recently it had been losing up to \$50,000 annually because operators could not write call tickets plainly enough for the company to charge them.

Thirty-one per cent of the utilities queried throughout the United States reported similar significant losses. Could these losses have been avoided?

Apparently the answer is yes, since in every case where losses were reported the utilities requested Handwriting Foundation booklets and material designed to foster better penmanship.

The midwestern phone company already has taken steps to aid penmanship, it reported. In conjunction with its local board of education, it initiated a training program to teach employees to write more legibly.

ONE utility company official wrote, "We do think that an organized effort, probably through the schools, to improve the handwriting of the public in general would be a great assistance not only to us, but industry as a whole."

Questionnaires came in by the dozens, reporting that anywhere from 21 to 25 per cent of the utilities' employees used handwriting that was illegible "almost all the time." Although many utilities did not hazard a guess as to how much was lost annually as a result of illegible handwriting, it was generally agreed that much loss of time occurred tracing down illegible entries in account and record books.

The Handwriting Foundation began its survey in response to complaints from business and industrial leaders and postal authorities throughout the country who have estimated that the nation loses many millions of dollars a year due to illegible handwriting.

Despite the increasing use of office machines, there are still many jobs where it is

PUBLIC UTILITIES FORTNIGHTLY

more efficient to use a pen or pencil.

In releasing the Handwriting Foundation utility company report, Frank L. King, executive secretary of the recently formed nonprofit organization, cites several other studies, including one recently completed by the Research Institute of America. On the basis of its study, which was aimed at finding ways of cutting down on paper work costs, the Research Institute recommended:

Many temporary work reports, work sheets, or first drafts do not have to be typed at all—or certainly not before they are in their final version. Naturally, the persons preparing such reports must write legibly and the person reading them must be prepared to accept them.

It is to assist in the encouragement and development of the "lost art" of penmanship that the Handwriting Foundation was organized.

According to the Handwriting Foundation's survey, the utilities themselves are attempting to weed out those whose penmanship is very bad.

Thirty-eight per cent of the utilities' personnel directors surveyed reported that they placed "great value" upon legible handwriting in considering job applicants. Eighty-eight per cent said that handwriting was an important factor in hiring new employees.

JOBS where it was felt that handwriting was of particular importance included bookkeeping, accounting, cashiers, operators, and secretaries. Some of the executives who answered the questionnaires admitted that their own handwriting was deplorable. Twenty-nine per cent of the utilities reporting said that handwriting was used as a criteria for job advancement.

Of course, legible penmanship is essen-

tial not only in places of business but in other areas too. The U. S. Post Office records indicate that hundreds of thousands of letters are lost each year because of illegible handwriting. The Handwriting Foundation is making an all-out effort to bring penmanship back into the curriculum of the schools.

A national magazine reported last year that in one New England city handwriting has not been taught in the public schools for the past nine years. The children were taught to sign their names and after that they were on their own.

"Even the schools that do teach handwriting do not give it the importance it used to have and still needs," said Mr. King. "The schools today serve more people better than at any time in our history," Mr. King stated. "Yet, at the same time, the negligent fashion in which the second of the three R's is being taught is extremely disturbing."

It is to fill the need of better penmanship that the Handwriting Foundation has been formed.

FIRST, it is striving to reinstate penmanship as an important course in the primary and secondary schools.

Colonel Clarence Lineberger of the Chicago Board of Education has reported that plans are under way to make penmanship a required course for all students having poor handwriting in the last year of high school.

The Handwriting Foundation is attempting to impress upon young parents, in particular, the necessity for combating neglect of handwriting.

The foundation also is providing handwriting lectures to business firms and other groups interested in handwriting.

Membership in the Handwriting Foundation is open to partnerships, associations, and corporations.

The March of Events



Gets FPC Approval

TEXAS EASTERN TRANSMISSION CORPORATION recently received Federal Power Commission approval, by unanimous vote of the full 5-man commission, for the removal of the major portion of the Little Big Inch system from natural gas service and the construction of substitute facilities to maintain the company's gas delivery capacity.

According to George T. Naff, president, this decision and the related order and certificate by the FPC will permit Texas Eastern to proceed with the recon-

version of some 1,118 miles of the Little Big Inch line—extending from Beaumont, Texas, to a terminal on the Ohio river near Moundsville, West Virginia—to the transportation of petroleum products.

The approved project calls for an expenditure of approximately \$86,600,000, of which \$14,800,000 is allocated for the Little Big Inch reconversion and \$71,800,000 is to cover the cost of the construction of a 382-mile pipeline and related facilities which will maintain present gas pipeline capacity despite the retirement of the Little Big Inch from gas service.

Colorado

Denver Gets Colorado Natural Gas

THE Denver metropolitan area has begun receiving natural gas from northeastern Colorado fields for the first time. The gas is being piped by Natural Gas Producers, Inc., a subsidiary of Colorado Interstate Gas Company, from the Con-

tinental Oil Company-operated gasoline plant in the Little Beaver area to Colorado Interstate's 20-inch line, which runs from Hugoton, Kansas, to Denver.

The daily volume initially is 4,000,000 cubic feet, but this is expected to be boosted to about 15,000,000 cubic feet during August, when another gasoline plant goes into operation in the Adena area.

Idaho

Three Dam Permits Urged

THE Idaho Power Company on July 6th urged the Federal Power Com-

mission to act quickly on its application for permission to build three dams in Hell's Canyon on the Snake river. R. P. Parry,

PUBLIC UTILITIES FORTNIGHTLY

Idaho Power attorney, said a power shortage predicted when the FPC hearings started two years ago "now is a reality."

William J. Costello, FPC examiner, recommended that the company be allowed to build only one dam in the canyon on the Idaho-Oregon border. Mr. Parry disagreed with the examiner's proposal.

The company filed 34 exceptions to the examiner's report, stating it to be "basically erroneous" in recommending only the Brownlee project and delaying licenses for Oxbow and Hell's Canyon. The FPC staff had previously recommended the licensing of all three projects. Points of disagreement with the examiner's findings centered mainly around future power needs of the

area, and around the cost of constructing the projects.

Commenting on the company's exceptions, T. E. Roach, Idaho Power president, said "We are pleased with the order as far as it went, but it didn't go far enough." He said the examiner overestimated the generating capacity of the company's present system and underestimated the future power requirements for southern Idaho and eastern Oregon to the extent of 100,000 kilowatts. "As a result," Roach said, "he concluded that only the Brownlee plant should be licensed at this time, without prejudice to later licensing of the Oxbow and Hell's Canyon projects."

Illinois

House Approves Utility Taxes

THE state house recently approved, 79 to 66, a bill to allow cities to impose a tax of up to 5 per cent on the gross receipts of utility companies. The permission applied to all gas, water, electricity, and electrically transmitted messages, sold and used or delivered within the city limits.

A companion bill would authorize the utility firms involved to pass on the tax to customers and to charge an amount up to 3 per cent of the tax collected to cover costs of collection. It was approved, 83 to 61.

For Chicago, it was said the legislation can mean an additional \$9,000,000 annually in revenue if used to its fullest.

Louisiana

Liquefied Petroleum Gas Agency "Legalized"

MOVING to "legalize" the Louisiana State Liquefied Petroleum Gas Commission, Governor Kennon recently appointed Stephen Dupuis of Opelousas and John Singreen of New Orleans as members of the agency. A spokesman for the governor's office said the men were "personal appointees of the governor to fill existing vacancies." He said the two appointments were only until December 8, 1955, because of a provision for staggered terms and the fact that the 5-year

terms of existing members have two years yet to run.

Last April, a contention of a Monroe liquefied petroleum gas company that the commission was not constitutionally organized because there had been only three members on the commission was upheld by a state court. The law creating the commission calls for a 5-member body with the secretary of state serving ex-officio, two members appointed directly by the governor, and two to be named by the governor from a list of six submitted by the state's liquefied petroleum gas dealers.

THE MARCH OF EVENTS

Michigan

City Power Plant Sale OK'd

VOTERS of Kalamazoo last month approved the sale of the municipal electric system to Consumers Power Company, major supplier of electricity in that city.

The company offered to purchase the municipal system for \$1,625,000. The election was advisory and subject to city commission action.

A majority of the city commissioners have indicated approval of the plan and it was expected that favorable action may be taken this month.

The vote was 3,160 in favor to 3,098 opposed.

Proponents of the system's sale maintained it would be too costly for the city to expand the system to meet present needs.

Pennsylvania

Gas Storage Bill Presented

A NEW bill to regulate underground storage of gas in the vicinity of coal mines was introduced in the state house recently with bipartisan political sponsorship.

Authors of the measure were Representatives George J. Sarraf, Lawrenceville Democrat, and Robert F. Kent, Meadville Republican.

The measure also would regulate the drilling and plugging of wells.

A companion bill proposed that the

name of the department of mines be changed to the department of mines and mineral industries.

The main bill would set up an oil and gas division within the department with a deputy in charge.

This is the first legislation ever presented with the full support of the coal and gas industries, plus that of the United Mine Workers.

At the 1953 session, the gas storage bill was defeated because of disagreement among the diverse interests.

Tennessee

Plan to Hold Referendum

MAYOR Frank Tobey of Memphis recently declared that a referendum to determine the opinion of city citizens toward issuance of bonds to finance a municipal power plant should be held "at the earliest possible moment."

Although such an election is not legally required, the mayor said he would "not consider the sale of these bonds or going ahead with this power project without first submitting such an important matter to the people."

Tobey did not indicate an approximate date for the election, but expressed belief it would be within a matter of weeks.

The Memphis city commission, in an earlier special session, authorized construction of a power plant to cost about \$100,000,000 at a site not yet selected. The commission instructed the light, gas, and water division to complete plans for the project as soon as possible. The division's contract for power with the Tennessee Valley Authority expires June 1, 1958, and construction of a local plant will require about three years.

Washington

State Strives to Block Dam

A THURSTON county superior court order, issued late last month, threw a roadblock into the path of immediate construction of two proposed Tacoma City Light dams on the Cowlitz river.

Superior Judge Charles T. Wright signed a temporary order, restraining the city from building the dams and from delivering the bonds to finance the structures to the firm that purchased them.

He ordered the city to appear on August 8th and show cause why the order should not be continued in effect until the outcome of a pending court action designed to block construction of the dams.

The court action involves a challenge by the state directors of game and fisheries of the city's right to construct the dams in the face of a state law establishing a fish sanctuary on streams flowing into the lower Columbia river.

Meantime, Tacoma's attorneys replied that to keep the order in effect until August 8th would cause the city possible damage of several million dollars. As a result a motion was filed to dissolve the temporary restraining order.

PUD Would Build Columbia River Dams

THE Grant County Public Utility District recently asked the Federal Power Commission for a license to build Priest Rapids and Wanapum dams on the Columbia river. The application was filed by Glenn Smothers, district manager. He said it is hoped to start building the \$161,000,000 Priest Rapids project "about this time next year" and to follow with the \$180,000,000 Wanapum dam two years later.

The two dams would have installed capacity of 1,260,000 kilowatts, of which

620,000 kilowatts would be in the downstream Priest Rapids plant. Between \$7,000,000 and \$8,000,000 additional would be spent on transmission lines to get the power to market, Smothers said.

The Priest Rapids site has been authorized for federal development, but Congress last year passed a bill laying aside that authorization for two years to give the district time to see if it could arrange to build the project.

Dam Appropriation Approved

A HOUSE-SENATE conference committee recently agreed to allow \$1,000,000 for a construction start on Ice Harbor dam on the Snake river in Washington state. The amount was added early this month to a public works appropriation bill and House conferees agreed to endorse it, although nothing had been allowed by the House.

The conferees also approved appropriations for a group of other projects in the Pacific Northwest, with three exceptions. A Senate allowance of \$200,000 for planning on Green Peter dam in Oregon was cut to \$100,000, a \$500,000 construction fund for the Tallent project in Oregon was cut to \$150,000 for plans, and a \$600,000 planning fund for John Day was cut to \$550,000.

Other items allowed by the committee which had been approved only by the Senate included \$373,216 for the Tacoma waterway; \$475,000 for a power plant on the Roza, Washington, project; \$750,000 for dredging at the mouth of the Columbia river; \$500,000 for construction on Cougar dam in Oregon; \$300,000 for construction on Hills Creek dam in Oregon; \$200,000 for the Coos Bay project in Oregon; and \$200,000 for the Tallamook Bay project.



Progress of Regulation

Regulatory Trends

EMPHASIS on cost of capital as a factor affecting the rate of return has presented to regulatory authorities various problems involved in determining such cost. These include the interrelated questions of stock prices, earnings, yields, and accumulation of surplus. An obvious cost of equity capital is the amount paid to stockholders by way of dividends. Another cost, however, is the amount which stockholders may require as an addition to surplus. This is particularly of interest to stockholders who prefer the so-called growth stocks. Whether stockholders desire dividends or surplus accumulation, their requirements indicate the capital cost.

Provision for Surplus

A Connecticut court, in *Guilford-Chester Water Co. v. Loughlin* (113 A2d 608), has upheld a rate order of the state commission although the company complained that the commission failed to consider evidence that it was entitled to operating income sufficient to maintain its present dividend rate of 6.77 per cent without using for the purpose more than 84 per cent (pay-out) of net earnings from dividends, so that the balance might be carried to surplus. The company argued that the commission arrived at a figure no more than sufficient to pay dividends. The court found no basis for an independent determination, as a matter of law, that a payment into surplus in any specified

PUBLIC UTILITIES FORTNIGHTLY

amount or percentage was necessary to insure financial integrity and investor confidence.

The commission's determination, said the court, gave full effect to the company's own estimate of income and expense and allowed it an amount sufficient to meet cost of service, financing, carrying charges, depreciation, and a return to stockholders in excess of 6 per cent. The rates did not provide any significant amount to be carried to surplus for the year 1954, but the commission had found that if the year 1955 showed the growth indicated by past experience, there would be an additional amount to carry to surplus.

Other Views on Surplus

The Supreme Court, in the United Railways & Electric Company Case (PUR1930A 225), expressed the opinion that after paying just and reasonable dividends there should still remain something to be passed to the surplus account. Earnings and dividends have been considered by many regulatory authorities in recent years although, as stated by the Federal Power Commission in the United Fuel Gas Company Case (100 PUR NS 405), a commission has no responsibility to insure any particular dividend rate. The New York commission, in the New York Telephone Company rate case (84 PUR NS 267, 286), explained that earnings rather than dividends measure the fair rate of return, but a company's dividend policy and history must be studied along with other factors affecting cost of capital.

The Alabama commission is among those which have recognized that if a utility is to maintain the confidence of the investing public it must earn not only current dividends but an additional amount sufficient to maintain a surplus. This would assure continuity of dividends in less profitable years. This view was expressed in the Southern Bell Telephone & Telegraph Company Case (96 PUR NS 1, 21) and was reiterated in a later decision involving the same company (4 PUR3d 195). The commission made it plain, however, that the public should not be burdened with rates over and above those necessary to yield a reasonable surplus.

Pay-out Policies

In addition to the question of allowing something for surplus, there is the matter of company policy in treating it as surplus. Earnings not paid out in the form of dividends, represent the amount added to surplus. Pay-out policies have been considered by many companies and by financial experts. Views on this subject, for example, were expressed in the article by Fred P. Morrissey on "Dividend Payout and Utility Common Stock Value" which appeared in PUBLIC UTILITIES FORTNIGHTLY, issue of May 26, 1955.

The Connecticut commission (2 PUR3d 379, 388) said that a fair pay-out appeared to be somewhere between the extreme high which characterized 1952 and the national 1948-52 average of 72.5 per cent for the entire electric utility industry. The District of Columbia commission, in fixing rates for a

PROGRESS OF REGULATION

member of the Bell telephone system (6 PUR3d 222), found 80 per cent to be a proper pay-out ratio. The Maine commission (92 PUR NS 46) considered earnings of an electric company reasonable when they made possible the payment of dividends upon the basis of a pay-out ratio of approximately 77 per cent. The Massachusetts commission (3 PUR3d 1) determined a return after using a 75 per cent pay-out ratio. A dividend pay-out of 75 to 80 per cent was considered by the New Jersey commission (1 PUR3d 191, 198) to be sufficient to provide a subsidiary a sufficient margin for contingencies.

The Utah commission, in the Mountain States Telephone & Telegraph Company Case (2 PUR3d 75, 82), said that sound business practice dictates that a continuing corporation should not pay out all of its earnings in dividends. Retention of a part in the business provides protection for future dividends and for unforeseen contingencies. Retained earnings also provide capital to the company. In the Citizens Utilities Company Case (96 PUR NS 33), the Vermont court noted that when a company is seeking higher rates on the cost of capital theory, if increased pay-out would lower the cost of capital, the commission could give consideration to it.

Review of Current Cases

Rate Refund Because of Noncompliance with Filed Contract Rates Sustained by Court

THE United States court of appeals denied a petition to vacate a Federal Power Commission order requiring a pipeline company to make a partial refund of charges collected from a distributor.

The seller had explained increased rates in a supplementary contract for the sale of natural gas on the basis of the cost of enlarged facilities necessary for supplying the buyer with increased quantities from a specified source. Both the buyer and the commission, held the court, were justified in assuming that such expenditure would actually be made. The seller later charged increased rates for gas supplied from a different source.

To permit the seller to charge the increased rates, said the court, would have the effect of permitting the company to change its own schedule of rates. The pipeline company could easily have avoided alleged losses by disclosing to the commission its deviation from the recorded contract rates. This it did not do. The proceeding to enforce compliance with the filed rates, brought by the commission and the buyer, was justified. The commission, by its order, had not retroactively made new rates, but had only enforced existing contract rates. *United Gas Pipe Line Co. v. Federal Power Commission*, 220 F2d 706.



Normalized Operating Results Adopted and Land Accounts Accepted

IN examining studies pertaining to a water company's results of operation,

the California commission noted that estimates submitted by its staff and the com-

PUBLIC UTILITIES FORTNIGHTLY

pany, respectively, reflected a fundamental difference in approach. The staff had placed the year 1955 on a normalized basis with provision for system, customer, and usage growth while the company had estimated the results of operation for 1955 on the basis of what it anticipated would actually be experienced.

The company's method was thought by the commission to have a decided disadvantage because it did not clearly indicate trends. Although the rate-making process was prospective in nature, and the commission would take future operations and conditions into account wherever possible, it would be erroneous to accept either one abnormal or one subnormal year as the basis on which a new rate structure should be designed. The past and prospective normalized revenues developed by the staff were adopted.

Adjustments to Landed Capital Account

The commission discussed adjustments made by the staff concerning landed capital. The basis for the adjustments was an engineering audit of the records of one of the company's predecessors for the period 1896 to 1911. The staff had proceeded on the assumption that the audit completely accounted for the original cost of all of the lands used by and useful to utility operations at the time of the audit.

Such audit, however, accounted only for cash transactions. Lands or rights of way obtained for any consideration other than cash were not included. Therefore, the audit did not set forth the original cost of total landed utility capital as of any date.

Reliance on the audit would lead to an incomplete and false conclusion as to the amount properly chargeable to the land account of the company's predecessors and, subsequently, to the land account of the company.

The company's plant accounts, including the land account, were initially set up under the authorization of a commission decision. Since that time, retirements had been recorded on the basis of the plant account so set up, shares of stock had been sold, and credit had been extended on the basis of the book figures thus established. Since 1935, the commission, in 33 separate formal proceedings, had authorized the company to issue securities based on the book figures previously authorized.

The commission took official notice of its opinions and actions in the previous decisions and concluded that the authorized entries were proper. The staff had presented no convincing evidence on which to base a contrary finding. *Re California Water & Teleph. Co. Decision No. 51460, Application No. 35751, May 10, 1955.*



Life Still Not Rosy for Cozy Cab Company After Fare Increase

THE Massachusetts Department of Public Utilities granted a fare increase to Cozy Cab & Bus Company after an investigation of the company's financial situation indicated that earnings could not be increased by putting any additional operating economies into effect. Gross revenue (including nonoperating income) for the previous year had been close to

\$100,000 but the company had suffered a net loss of about \$15,000 on its over-all operation.

Despite the increase, the company would probably still operate at a loss.

The company proposed to increase some zone fares by 5 cents. Such an increase, it was estimated, would result in a 19 per cent increase in revenues from the lines

PROGRESS OF REGULATION

involved. The changes in certain zone rates were not considered arbitrary or unfair.

Finally, the department ruled that it was beyond its authority to compel the com-

pany to furnish service at a loss particularly on the lines affected by the fares involved in these proceedings. *Re Cozy Cab & Bus Co. DPU 11143, May 19, 1955.*



Commission's Denial of Discontinuance Petition Reversed

THE Nebraska supreme court reversed a commission order denying a railroad's application to abandon custodial service at a station. The court held that the commission's denial was arbitrary, unreasonable, and contrary to law.

The record indicated that only thirty-five residents were within one-half mile of the shelter located at the station, that the custodian was at the station only one and

three-quarter hours a day, and that only the postmaster used the station. From these facts, together with evidence that no cream had been shipped for thirty-two months and that only one freight shipment had been forwarded in the same period, the court concluded that the commission should have allowed the discontinuance. *Chicago, B. & Q. R. Co. v. Keifer et al. 69 NW2d 541.*



Shippers' Association Must Obtain Certificate

THE Georgia supreme court affirmed a lower court order restraining a shippers' association from operating as a motor carrier for hire. The court ruled that the association's method of handling shipments and its assessing members for services rendered to them placed the association in the class of a public utility.

Since the provision of state law made it unlawful for a public carrier to operate without a certificate, the court concluded that the association should not be permitted to operate unless and until it had obtained a certificate. *Southeast Shippers Asso., Inc. v. Georgia Pub. Service Commission et al. 87 SE2d 75.*



Community Need More Important Than Ability to Serve In Resolving Radio License Controversy

THE United States Supreme Court reversed a lower court decision in a proceeding involving rival applications for radio broadcast licenses. It was obviously a difficult matter to decide. The Federal Communications Commission examiner decided the case one way. The full commission reversed the examiner. The United States court of appeals reversed the commission. The Supreme Court remanded the case to the court of appeals.

Applicants from two Pennsylvania

cities (Allentown and Easton) sought broadcast licenses on the same frequency. Neither station would render service in the other's community, but simultaneous operation of the two stations would cause mutually destructive interference.

Commission's Position

The commission made detailed findings of fact as to the qualification of the applicants and the nature of the communities to be served. Most factors provided no

PUBLIC UTILITIES FORTNIGHTLY

basis for choosing between the applicants. The examiner had based its opinion on findings that Easton's witnesses were reluctant, evasive, and lacked candor; that Easton was uncertain about making network connections; and that the grant of the Easton license would concentrate local communication media in the hands of the publisher of the local newspaper.

The commission's position was that when mutually exclusive applicants seek authority to serve different communities, the first fact to be determined is which community has the greater need for the service and then which applicant can best serve that community's need. Otherwise, the commission argued, the needs of the community would be subordinated to the ability of an applicant for another locality.

Community Need

The Supreme Court agreed with the commission's decision. The fact that Easton had only one station while Allentown had two was one of the points to which

the court directed attention. "The distribution of a second license to a community in order to secure local competition for originating and broadcasting programs" was, according to the court, within the allowable area of commission discretion. None of the examiner's findings as to the quality of Easton's testimony or the concentration of communications media was considered a bar to Easton's receiving the broadcast license.

Weight of Examiner's Opinion

An attempt to apply Rule 52(a) of the Rules of Civil Procedure to the commission's review of its examiner's opinion was considered improper by the Supreme Court. The rule bars a reviewing court from setting aside a trial court's findings of fact unless they are clearly erroneous, but does not limit the power of a commission to review the decision of administrative examiners. *Federal Communications Commission v. Allentown Broadcasting Corp. No. 451, June 6, 1955.*



Telephone Rate Differential Approved for Small Telephone Company

THE Wisconsin commission approved a telephone company's application for authority to increase rates to subscribers with common battery telephones. The additional cost of 50 cents per month, the commission said, "bears a reasonable relationship to and is justified by the additional cost of rendering common battery

service from a magneto switchboard."

The company's present practice of charging the same rate for magneto and common battery service was described as unjustly discriminatory because of the greater expense involved in battery service. *Re Gilmanton-Dover Farmers Teleph. Co. 2-U-4364, April 19, 1955.*



Holding Company Denied Fee for Services in Subsidiary's Reorganization

THE United States court of appeals upheld an order of the Securities and Exchange Commission denying a holding company an allowance for fees and ex-

penses for services rendered by it in its subsidiary's reorganization proceeding. Both the holding company and its subsidiary had been ordered to comply with

PROGRESS OF REGULATION

§ 11 of the Holding Company Act. The holding company admitted that it could not have complied with the act in the absence of compliance by the subsidiary. Thus, its participation in the subsidiary's reorganization had the dual aspect of furthering its own compliance as well as protecting its investment in the subsidiary.

Bankruptcy Reorganization Rules

The holding company argued that the applicable criteria for this case must be found in cases dealing with allowances in reorganizations under the Bankruptcy Act.

The rule in such cases is that compensation for services, valuable in effectuating a reorganization, may not be denied merely because the party furnishing such services has a selfish interest in effectuating the reorganization. The court rejected this argument.

The court held that the bankruptcy reorganization rule does not apply where the compensated party is under a statutory obligation to achieve the reorganization. Such was the case here. *United Corp. v. Securities and Exchange Commission*, 219 F2d 859.



Protective Committee Awarded Fees and Expenses in Holding Company Reorganization

THE Securities and Exchange Commission has awarded a protective committee an allowance for fees and expenses in a holding company reorganization proceeding. It said that if such committees are duly organized and function diligently and in good faith, and not merely for the purposes of obstruction or to obtain compensation, they are entitled to compensation out of the estate.

The commission observed that it might be that, however faithful and capable their representation, the plan would have been approved without substantial alteration. In such case, it said, if the service

rendered was only exploratory or "watch-dog" service and did not effect any substantial change in the plan, the fee allowance would be quite modest. The time and effort expended efficiently and in good faith would be the principal criteria.

Protective committees, duly organized and efficiently and properly functioning, may be allowed reasonable fees and expenses out of the estate, however, whether or not the commission can point to any particular provision of the approved plan as directly due to their participation. *Re Central Pub. Utility Corp. File No. 54-156, Release No. 12896, May 17, 1955.*



Cancellation of Holding Company's Stock Option Warrants without Compensation Approved

THE United States district court has upheld the Securities and Exchange Commission in its ruling that a holding company reorganization plan providing for the cancellation of the company's common stock option warrants without compensation was necessary, fair, and reasonable, within the meaning of § 11 of the

Holding Company Act. It held that option warrants without investment value constitute an unnecessary complexity in the corporate charter of a holding company or subsidiary.

In deciding that the cancellation of the warrants was fair and equitable to the persons affected, the court said that the

PUBLIC UTILITIES FORTNIGHTLY

test of fairness is whether each security holder, in the order of his priority, receives the equitable equivalent of the rights surrendered. In a § 11(e) reorganization of a solvent corporation, the rights surrendered are valued as in a going concern. Investment value, rather than market value, is the test.

Value of Warrants

A master factor to determine value of rights to be surrendered by holders of option warrants, according to the court, is an analysis of the terms of the warrants. Here, warrant holders were denied any rights as stockholders. For example, without affecting the option price of \$27.50 per share, the common stockholders had the right to withdraw all increments in value that might be credited to earned surplus, whether ordinary income or capital gains, in the form of divi-

dends. Increments might remain in the corporation and the resultant increase in value per share might be prevented by a declaration of additional common shares in the form of a stock dividend.

But, apart from the right of common stockholders to retain increments in value, the record of the holding company's assets and earnings and the market price of its stock supported the commission's conclusion that there was no reasonable expectation in the foreseeable future that the company's earnings or assets would be such that the market price of its common stock would increase to give warrants a recognizable value. Test of value applied by the commission—value based on reasonably foreseeable earnings and assets—is the criteria approved by the Supreme Court and by the court of appeals in other cases, the court said. *Re United Corp.* 128 F Supp 725.



Plant Acquisition Adjustment Included in Rate Base

A GAS company was authorized by the Georgia commission to increase rates in order to offset increased cost of gas from the wholesaler. The question of the treatment of acquisition adjustments and related amortization charges was considered. Commenting that prudent investment, which the commission thought represented an appropriate rate base, includes plant acquisition adjustment balances incurred at arm's length in the acquisition of utility property, the commission held that such adjustments should be included in the rate base.

No increased revenues had been sought

by the company for its own cost of operation. If the wholesaler had not increased its rates, there would have been no application for an increase in retail rates. Furthermore, the company's rates were substantially lower in the area in question than those in adjacent territory. Under these circumstances, it did not appear that the acquisition adjustment was an imprudent investment to be excluded.

The commission held that consistency also required the inclusion in the amortization in operating expenses. *Re Gas Light Co. of Columbus*, File No. 19462, Docket No. 795-U, April 14, 1955.



Telephone Company Authorized to End Free Service

THE Indiana commission approved a telephone company's application for authority to remove discrimination exist-

ing in certain portions of its territory. The discrimination in question consisted of free service between about 105 subscribers

PROGRESS OF REGULATION

and certain exchanges of other companies. Customers living in other areas were required to pay for the same telephone service.

The commission ruled that, notwithstanding the fact that this situation had existed for thirty-five years, an unwar-

ranted preference existed which should be eliminated. When some subscribers are receiving without charge service for which other subscribers are paying tolls, discrimination is clearly indicated. *Re Ligonier Teleph. Co. Cause No. 26074, June 2, 1955.*



Municipal Acquisition of Gas System at Reproduction Cost Appraisal Authorized

A MUNICIPALITY obtained authority from the New Mexico commission to purchase a liquefied petroleum gas plant, to convert it to natural gas, to construct additional plant and facilities, and to issue revenue bonds to finance the project. In a related proceeding, consolidated with the present one for practical purposes, the owner of the plant was authorized to sell to the municipality. The residents of the city had already voted in favor of the transaction.

Purchase Price

An appraisal of the property being acquired was based upon reproduction cost new less depreciation. The commission considered this a reasonable method of estimating the true value of the property. The purchase price, about the same as the appraisal, was considered fair.

Rate Factor

Rates for liquefied petroleum gas service would be substantially higher than those for natural gas service. Furthermore, the customer receiving natural gas service would, in fact, receive approximately twice as much heating value as the person receiving liquefied petroleum gas service, based upon the cubic feet of gas actually billed to the customer.

While bills for customers in the lowest brackets of consumption would be about the same, whether liquefied petroleum gas

or natural gas was served, about 85 per cent of the customers would benefit by receiving natural gas.

If the community were to operate as a liquefied petroleum gas system, it would have to acquire additional storage and transportation facilities at substantial expense.

Financing Factor

Even more important, the commission said, was the fact that revenue bond financing is virtually impossible to obtain upon the basis of a proposal to operate a liquefied petroleum gas distribution system.

The city's fiscal agent was satisfied as to the feasibility of the operation. The commission also observed that the execution of a commitment to purchase the revenue bonds by investment banking houses of established repute indicated their satisfaction with the feasibility of the project.

Furthermore, if the experience in the operation of the system should not come up to expectations, the town would be bound by law to establish rates sufficient to provide for debt service requirements on the revenue bonds. The proposal before the commission was based upon the establishment of rates which would result in net operating revenues providing a coverage of 1.5 times debt service requirements, and it appeared that the proposed bonds

PUBLIC UTILITIES FORTNIGHTLY

could very possibly pay out in less time than their proposed maturity. The commission concluded, therefore, that the studies of feasibility supported approval of the application.

The commission believed that the rates proposed for natural gas service would be sufficient to cover the reasonable esti-

mated operating experience of the plant, principal and interest payments upon the bond issue, and provide a surplus annually during the period when any bonds of the proposed issue would be outstanding. *Re Shaw (Mountainair Gas System)*, Case No. 441, June 2, 1955; Case No. 440, June 1, 1955.



Railroad Not Party in Interest in Action to Set Aside ICC Order Consolidating Motor Carrier Control

A RAILROAD attempted to have an ICC order consolidating control of certain motor carriers set aside. The railroad alleged that it was in competition with the motor carriers and, therefore, was a party in interest under a section of the ICA which allowed court review of a commission order.

The United States district court dismissed the action. The fact that the railroad was permitted to intervene before the ICC did not, in and of itself, entitle it to institute an independent suit to set aside the commission order, in the absence of resulting actual or threatened legal injury. There was no right of the

railroad which had been violated by the commission order and there was no damage alleged.

However, a party must have some special and peculiar interest which may be directly and materially affected by the action alleged to be unlawful.

The court pointed out that, although the motor carriers might, under joint control with adequate financial backing, offer stronger competition to the railroads, the commission order had not created additional motor carrier service. The railroads had no right to be immune from lawful competition. *Atchison, T. & S. F. R. Co. v. United States*, 130 F Supp 76.



Certificate Not Required for Buses Serving Manufacturer

THE New York commission sought to enjoin operation by a corporation which had contracted to transport employees of a manufacturer from the nearest subway stop to its plant. The commission contended that the corporation was operating an omnibus line illegally, because it had not received a certificate of public convenience and necessity to operate.

The supreme court cited a statute which set forth the criteria for determining whether motor vehicles are operated as an omnibus line as follows: (1) for the use

and convenience of the public, (2) usually along the same route or between stated termini or on a fixed or stated schedule, and (3) carrying passengers for hire.

Since the buses were being operated between stated termini, the second criteria had been met, and the issues narrowed down to whether the buses were being operated for the use and convenience of the public and whether passengers were being carried for hire.

The court did not agree with the contention of the commission that the buses were being operated for a particular seg-

PROGRESS OF REGULATION

ment of the public; that is, the manufacturer's employees. Public convenience and necessity did not appear to be involved. The court was unable to perceive any public harm or injury if the enterprise of the corporation was not subjected to governmental regulation. Since the buses were

not being operated for the use and convenience of the public, a certificate was not required under the law. The application for injunctive relief was dismissed. *New York Public Service Commission v. Blue Bus Service Co., Inc. et al.* 140 NYS2d 101.



Indices Used to Estimate Original Cost and Depreciation Rates Established

UPON rehearing on the application of a water company for the fixing of valuation and a depreciation rate, the Idaho commission adopted the original cost theory as best serving the public interest. While the company was able to show how much was paid for the original plant at the time of purchase in 1919, yet no adequate records could be produced as to plant additions up to 1949, though about half the cost of the plant was added during that period. Under the circumstances the commission computed probable original costs by indices, a method commonly used and said to be acceptable in valuation determinations.

Land Valuation

The company contended that land being used for utility purposes should be valued at fair value as of the date of inquiry, and submitted appraisals of the property for uses other than utility purposes at figures greatly in excess of the purchase price.

The commission, however, declared that its consideration must be confined to the

value of the property for the use to which it was actually devoted. A valuation based on original cost was deemed to be proper.

Depreciation and Actuarial Methods

The commission discussed the problem of physical and functional depreciation and asserted that the application of actuarial methods has helped appreciably in eliminating some of the confusion surrounding that problem. Mortality curves, it was pointed out, combine all causes of mortality, both physical and functional, into one curve of experience. Moreover, such curves, as well as average lives, may be determined from property records if they are available. In the absence of adequate records of property items, and with the use of informed judgment, curves may be drawn to represent the experience of similar items of property.

The commission accepted the straight-line remaining life method of fixing depreciation and ordered a schedule of annual rates for the various property accounts. *Re Jerome Water Co. Case No. U-1030-1, Order No. 3121, May 5, 1955.*



Service Discontinuance Hinges on Distinction between Public Convenience and Public Necessity

THE supreme court of Oklahoma reversed an order of the commission denying a railroad authority to discontinue

certain passenger trains on the ground that the order was not supported by substantial evidence.

PUBLIC UTILITIES FORTNIGHTLY

The evidence showed that only 5.2 persons per train mile used these trains out of a population of nearly 50,000, that almost all of this population was served by other public transportation facilities, and that the remaining few persons were located on paved highways. It appeared that more people were required to operate the trains than rode them.

On these facts the court said it was clear that the trains served only public convenience, and not public necessity as found by the commission. Therefore, the court held that the railroad could not be required to continue the service at a loss merely to meet public convenience, as distinguished from public necessity; such a requirement

would deprive the company of its property without due process of law.

Continuing in its opinion, the court cited two similar cases in which it had held that the railroads concerned, having shown a lack of public necessity, were not required to prove that their total revenues from both passenger and freight service were insufficient to cover the loss from passenger operations, in order to be entitled to discontinue that service. But it was made clear, on the other hand, that if public necessity were shown, then an absolute duty to furnish service would devolve upon the carrier without regard to revenues. *St. Louis-S. F. R. Co. v. Oklahoma*, 283 P2d 519.



Ninety-eight Per Cent Considered a Passing Mark for Metropolitan Area Service

THE Indiana commission granted a telephone company's request for authority to install metropolitan area service throughout a number of exchanges. One of the important considerations affecting the commission's decision was that 98 per cent of the replies to a postcard survey and 99 per cent of a telephone canvass favored the extended service.

The commission indicated that the service rearrangement would be a great improvement for outlying areas which would have access to central office areas on a flat rate basis. The proposal was described as being "in the public interest and generally in the interest of telephone customers" in the area. *Re Indiana Bell Teleph. Co. No. 25985*, April 28, 1955.



Promissory Notes to Reimburse Treasury and Finance Construction Program

THE New York commission has authorized the Republic Light, Heat & Power Company to issue promissory notes to be used for the reimbursement of moneys expended from income or from other moneys in the company's treasury used for plant improvement. It pointed out that the problem of selecting the class of securities to be issued and sold in connection with the financing of capital expenditures is primarily a decision to be

made by management. Under ordinary circumstances management's determination should be controlling, provided the terms under which the proposed securities are to be issued will not adversely affect public interest.

The company has a unique capital structure in that it has never issued any mortgage debt or preferred stock. At the end of the past year its long-term debt consisting of unsecured notes, represented

PROGRESS OF REGULATION

approximately 18 per cent of total capital and surplus. Issuance of new notes would increase the debt ratio to nearly 38 per cent and would provide funds at a cost as low as, if not lower than, could be obtained from the issuance of mortgage debt securities.

Reimbursement of Treasury

The company was denied permission to use part of the proceeds for reimbursement of its treasury because the purpose for which the funds were to be used was not stated. The only explanation offered was that the company's ordinary working capital had become depleted and that

there was a reasonable corporate need for restoration of such capital to the amount the company would naturally be expected to have in order to operate. No evidence was presented as to the extent, if any, that the company's working capital was depleted.

The commission said that the issuance of securities merely for the purpose of placing the proceeds in the company's treasury without proof that such funds are required for a specific purpose does not conform with the provisions of the Public Service Law. *Re Republic Light, Heat & Power Co., Inc. Case 17225, April 27, 1955.*



Systematic Travel over Territory Not Required for Reasonably Continuous Motor Carrier Service

THE Arkansas supreme court upheld a commission order approving an application for permission to sell a motor carrier business. A statute prohibited such a sale when inconsistent with the public interest or if the seller had not rendered reasonably continuous service prior to the application for transfer. Competing carriers contended that the commission was not justified in holding that either of the statutory conditions had been satisfied.

The court was unwilling to say that the commission was in error. Since the commission's knowledge of its own specialized field was undoubtedly superior to the court's, the administrative agency's judgment on a question of fact was not to be set aside unless clearly against the weight of evidence.

The permit in question authorized a wide range of operations, both as to the commodities to be carried and the territory to be covered. Whether there was a need for the whole range of facilities that might be made available under the transfer was not the question, held the court,

for the issue of public convenience and necessity was determined when the permit was granted. Nor was the applicant required to show that it had fully utilized the possibilities lying at its disposal. No law or regulation required a motor carrier systematically to travel over all territory with trucks that were empty for want of business.

The protesting carriers took the position that the statutory requirement of reasonably continuous service was intended to prevent a dormant franchise from being offered for sale to the highest bidder. This might be true, said the court, but the commission was warranted in concluding that the certificate had not been dormant. The carrier, with relatively modest assets, always had held itself in readiness to render service, had advertised its existence, and had accepted whatever business was offered. The commission's decision that the service had been reasonably continuous was not contrary to the evidence.

The proposed sale could not be denied on the ground that it was contrary to pub-

PUBLIC UTILITIES FORTNIGHTLY

lic interest either. The fact that a more active utilization of the franchise would take some business from established carriers might be pertinent if the issue were one of public convenience and necessity. In a proceeding for authority to transfer the permit, it could not be used as a ground for denying the transferees an opportunity

to prove the need that was found to exist when the certificate was originally granted, a need that the applicant itself might have alleviated had it been able to expand facilities to the competitive extent that now caused the protesting carriers to be disturbed. *Arkansas Motor Freight Lines v. Howard*, 278 SW2d 118.



Extension Approved Despite Reduced Operating Ratio

THE Massachusetts commission granted a gas company's petition for authority to extend service to a town contiguous to towns being served by it. The company had firm commitments to serve a substantial number of new customers in the area involved.

The over-all ratio of operating revenues to gross plant would be reduced from about 40 per cent to about 24 per cent.

The commission did not believe that this difference would render the project so uneconomical as to warrant its disapproval. The project would serve a substantial public need.

The state commission also found that the extension could be made and operated without serious detriment to the balance of the company's customers. *Re Haverhill Gas Co. DPU 11288, June 3, 1955.*



Rate Base Determination Essential

A RAILROAD applying to the New Jersey board for authority to increase intrastate commutation fares claimed that since the entire operation produced a deficit, there was no necessity to develop a rate base. The board did not agree, and it denied and dismissed the application.

The determination of an adequate rate base was said to be fundamental in any rate proceeding. The board pointed out that it is charged with the duty of going behind figures shown on the books of the company. If complete evidence is not pre-

sented, the board must consider the rates in question arbitrary and unreasonable.

The railroad had made no attempt to justify expenditures. Where, as here, the railroad was an 80 per cent owned subsidiary of a parent company, it was incumbent upon the railroad to prove the reasonableness of expenditures. Inasmuch as the operating loss was a factor to be considered, the railroad had the duty to establish that the operating deficit was bona fide. *Re New Jersey & N. Y. R. Co. Docket No. 8347, May 18, 1955.*



Merger of Electric Companies Ends Burdensome Litigation

THE Federal Power Commission approved the merger of Pennsylvania Water & Power Company into Pennsylvania Power & Light Company. The for-

mer furnished wholesale power to four utilities in Pennsylvania and Maryland and the latter furnished electric service in Pennsylvania.

PROGRESS OF REGULATION

The Pennsylvania Water & Power Company owned one-third of the common stock equity of Safe Harbor Water Power Corporation, and Consolidated Gas, Electric Light & Power Company of Baltimore owned the remaining common stock. The surviving corporation has agreed that, upon completion of the merger, it will enter into a mutually satisfactory interchange agreement and transmission and power contracts with Consolidated. The commission observed that one of the most important consequences of the merger would be "the termination and disposition of the disputes, litigated and otherwise, between Consolidated and Penn Water, which have created a heavy burden on the two companies and the regulatory commissions."

The application stated that Pennsylvania Power & Light Company was Penn Water's largest customer and had

contracted to purchase more capacity and energy than all of Penn Water's other three electric utility customers combined. The merger would make available to the surviving corporation all of Penn Water's generation resources, as well as its entitlement to the output of Safe Harbor.

These generating facilities were located within the service territory of the surviving corporation, to whose system they have been connected through major transmission ties.

These sources of electric power would be fully competitive with present-day power plants after giving effect to savings resulting from economies in operation through the reduction of administrative costs and combining of functions previously carried on separately by the two corporations. *Re Pennsylvania Water & Power Co. Docket No. E-6597, 6598, May 5, 1955.*



Discontinuance of Railroad Station Denied

THE Missouri commission denied a railroad authority to discontinue an open agency station, since it appeared that the decreased traffic occasioning a loss to the company was probably the effect of a temporary cause. There was no other adequate carrier service available to the community. The commission pointed out that

the issue in such a case is whether or not the public convenience and necessity require continued operation of the station, giving proper consideration to the need of the area concerned, and due regard to the availability of other carrier facilities. *Re Atchison, T. & S. F. R. Co. Case No. 13,010, May 25, 1955.*

Other Recent Rulings

Return of 6.58 Per Cent for Telephone Company. The Missouri commission authorized a small telephone company to increase its rates to a point that would provide a return of 6.58 per cent, the commission indicating that the former rates producing a return of 4.36 per cent

were not reasonably adequate. *Re Seneca Teleph. Co. Case No. 12,885, April 19, 1955.*

Broker's Commission. The United States district court for Massachusetts dismissed a broker's action to recover

PUBLIC UTILITIES FORTNIGHTLY

commissions allegedly earned in connection with the sale of an operating certificate and pointed out that since the transfer was subject to the jurisdiction of the Interstate Commerce Commission, the broker should have made application, in the transfer proceeding before the commission, to have his commission before seeking relief in court. *Kline v. McLean Trucking Co.* 130 F Supp 32.

Sale Price below Appraisal Figures. The New Jersey commission, in approving the sale of certain railroad property at a price agreed upon at arm's length, held that a higher appraisal and tax appraisals in evidence were not conclusive or controlling upon the question of the reasonableness of the sale price, but were merely factors to be considered by the commission in arriving at its decision. *Re Erie R. Co.* Docket No. 8582, June 6, 1955.

Time Limitations. An action by a highway carrier for freight undercharges, based on an oral agreement for hauling services, held the California supreme court, rests upon contract and not upon a statute which gives the commission power to establish appreciable rates and, therefore, is subject to the 2-year statute of limitations governing oral contracts. *Gardner v. Basich Bros.* 281 P2d 521.

Exact Amount of Shipper's Damages. The United States district court, in reversing and remanding ICC findings that a railroad had furnished a shipper with adequate car service, commented that a railroad which has violated its statutory duty and has caused a shipper to suffer damage will not be permitted to escape

liability solely because the shipper is unable to prove the exact amount of damage. *Martin Bros. Box Co. v. Interstate Commerce Commission*, 128 F Supp 919.

Improper Yardstick. The United States district court held that the ICC's action in using, as a standard for determining rates for certain localities within adjoining states, an average of all the rates of the two states, and in concluding that a greater difference should be established between the average thereof than reflected in the differential previously established, was arbitrary, unjust, and improper. *Kansas State Corp. Commission v. United States*, 128 F Supp 646.

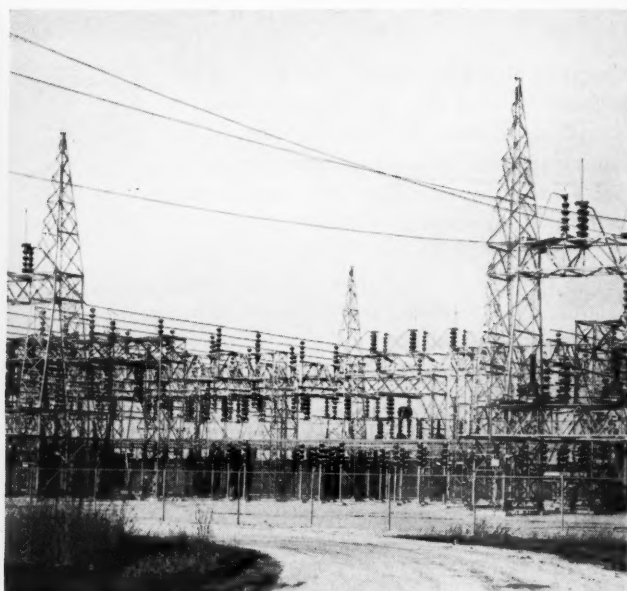
Irresponsible Carrier Denied Certificate. The California commission denied authority to a highway common carrier to extend operations where it had persistently operated beyond the limits of its certificate in the face of two cease and desist orders, the commission pointing out that public convenience and necessity demands responsibility and sensibility to and observance of lawful duties. *Re Arrow Pacific Drayage*, Application No. 34524, Decision No. 51357, April 19, 1955.

Deviation from Spur Track Clearance. The Missouri commission declined to allow a warehouse company to place a private spur track in such a position with respect to its loading dock as to leave clearances of less than those required by the commission's general order, because of the safety hazard and because the applicant failed to show good cause for the proposed deviation. *Re Carthage Ice & Cold Storage Co.* Case No. 13,062, May 9, 1955.

DELTA-STAR

A DIVISION OF
HKP
H. K. PORTER COMPANY, INC.

helps reduce outdoor substation costs



**Gain specialized experience, engineering advantages,
and complete satisfaction with DELTA-STAR on the job**

When planning a new outdoor substation, take advantage of DELTA-STAR's standardized engineering and production methods. You save money in the process—and need not sacrifice your special requirements.

Simply provide a one-line diagram of your proposed installation—for any type of station or any voltage rating. Add information about ground space available, arrangement and height of circuits. DELTA-STAR engineers then go to work for you.

You receive complete construction drawings. When drawings are approved, steel structures are fabricated and galvanized under rigid DELTA-STAR engineering control. All component parts are made ready or provided from stock—from anchor bolts to switch operating mechanism. Assembly and erection is quick and easy.

The result? You hold engineering and erection costs to a minimum. You gain satisfaction of a job well done. To gain these advantages, check DELTA-STAR for your next installation.

When you want the best in outdoor substations, specify DELTA-STAR.

DELTA-STAR ELECTRIC DIVISION

H. K. PORTER COMPANY, INC.
OF PITTSBURGH
2437 Fulton Street • Chicago 12, Illinois
District Offices in Principal Cities



Here's Proof of Performance...

302 pressure-creosoted poles installed in 1928 ... only one replacement due to pole failure

CENTRAL HUDSON GAS & ELECTRIC CORPORATION, serving the Mid-Hudson Valley, with General Offices at Poughkeepsie, N. Y., has more than 100,000 pressure-creosoted poles in its system. The company began using pressure-creosoted yellow pine poles in 1926, one of the first lines to be built being the River Transmission Line from Highland to Newburgh, a distance of approximately 16 miles.

This line was installed in 1928 and 1929, using 302 40'-60' poles. To date, ten poles have been replaced, but only one due to wood failure. Boring tests made recently show the poles are still extremely sound.

In specifying poles, it will pay you to follow this utility's example and rely on Creosote's unmatched records of service. And when you do, be sure your poles are pressure-treated with uniform USS Creosote. Its deep penetration, retention and high toxicity assure you maximum pole life. For complete information, contact our nearest Coal Chemical sales office, or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

See "THE UNITED STATES STEEL HOUR"—Televised alternate weeks—Consult your local newspaper for time and station.



1929 dating nails on this pole are evidence of the long, economical life of pressure-creosoted poles.



John J. Sotanski, Central Hudson Estimator, inspects pressure-creosoted poles in the company's River Line which have been in the ground more than a quarter century and are still sound, according to recent boring tests.

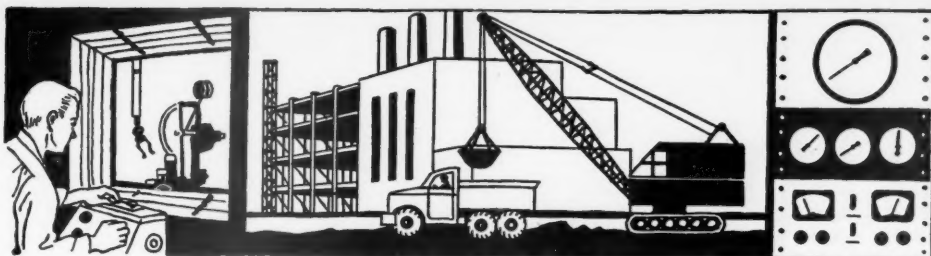
USS CREOSOTE

SALES OFFICES IN PITTSBURGH, NEW YORK, CHICAGO, CLEVELAND, SAN FRANCISCO AND FAIRFIELD, ALA.



UNITED STATES STEEL

5-220



Industrial Progress

Power Companies to Spend \$70 Billion for Construction

GEORGE G. WALKER, president of Electric Bond & Share Company, predicted recently that America's power companies will spend \$70,000,000,000 for construction over the next 15 years.

Speaking at the company's annual meeting, Mr. Walker forecast that by 1970 use of electricity will be triple what it is today.

Pennsylvania Power to Add 90,000 KW Unit to New Castle Station

PENNSYLVANIA Power Company will increase the capacity of its New Castle power plant by more than 50 per cent, with the addition of a 90,000 kilowatt steam turbine generator unit, according to announcement by Executive Vice President C. S. Bowden.

The new unit, scheduled for operation in the fall of 1958, will raise the plant capacity to 263,000 kilowatts, making it one of the largest plants in that western Pennsylvania area.

G-E to Build 300,000 KW Unit For Con. Edison

THE General Electric Company recently announced it has received an order from the Consolidated Edison Company of New York for a 300,000 kilowatt steam turbine-generator.

William E. Saupe, general manager of G-E's Large Steam Turbine-Generator Department, said the unit will be the largest yet manufactured by the company and will also be one of the most powerful in the world.

The new machine is scheduled for shipment in 1957 to the Astoria station of Con Edison as part of a \$65,000,000 expansion program. Two G-E turbine generators, each rated 180,000 kilowatts, are now in operation at the station.

Mr. Saupe said the 300,000 kilowatt unit will be of the cross-compound reheat design pioneered by G-E with a high pressure element operating at 3600 revolutions per minute and a double flow low pressure element operating at 1800 revolutions per minute. Initial steam pressure will be 2000 pounds per square inch at a temperature of 1050F. Reheat temperature will be 1000F. Output of the machine will be split about equally between the two elements.

New RCA Bulletin on How Sound Gets Things Done in Industry

KEY functions of industrial sound systems are described in a 12-page booklet issued by Radio Corporation of America, Camden, N. J. Applications of sound and typical equipments are discussed and illustrated.

To obtain copies of this booklet, request Form 3R2478. Write Engineering Products Division, Building 15-1, Camden, N. J.

G-E Bulletin On Components and Services for Nuclear Reactor Systems

THE G-E Atomic Power Equipment Department has announced a new bulletin showing equipment available for use in nuclear reactor and nuclear laboratory systems.

The bulletin, designated GEA-6014, in four pages lists and pictures complete research reactor systems, remote handling equipment, an electromagnetic pump and coolant system components. Copies may be obtained from the General Electric Apparatus Sales Division, Schenectady 5, N. Y.

H. B. Sargent Elected President Electric Power Public Information Program

HENRY B. SARGENT has been elected chairman of the Electric Com-

panies Public Information Program, it was announced recently by the Steering Committee. He succeeds Robert E. Ginna, executive vice president of Rochester Gas and Electric Corporation, who served two years.

Mr. Sargent has been in the utility business since his graduation from Tulane University, first joining Mississippi Power & Light Company. He became president of Central Arizona Light and Power Company in 1946, and when that company merged with the Arizona Edison Company in 1952, to form Arizona Public Service, he became its executive head. Effective August 1st, Mr. Sargent will resign this latter office and become president of American & Foreign Power Company.

Mr. Sargent is keenly interested in the development of energy from the sun's rays, and is chairman of the executive committee of the Association for Applied Solar Energy.

New members of the Steering Committee, which forms policy for the public relations program, are: Floyd D. Campbell, president, New England Gas and Electric Association; R. Roy Dunn, president, Potomac Electric Power Company, and Arthur S. Griswold, assistant to the president, The Detroit Edison Company.

Detroit Edison Plans 2 More Nuclear Plants

DETROIT Edison Company plans to start building a second atomic power plant within five years and a third by 1965.

The multi-million-dollar program, as envisioned today, will be an expansion of the original \$45,000,000 nuclear power plant now being pioneered by Edison and a group of associate utility corporations for the production of electric energy.

(Continued on page 24)



Repair cost = $\frac{1}{50}$ ¢ per foot on 120,000 feet of extension work

CENTRAL ELECTRIC & GAS CO., Lincoln, Neb. with their Cleveland "Baby Digger" consistently dig an average of about 200 feet of trench per hour . . . a good production average on gas extension projects where numerous line obstacles are encountered both above and below ground.

Their Cleveland, shown above working easily along the edge of a lawn, recently completed more than 600 hours of trench digging—about a half year's work on use of this kind—with no need of repairs or parts replacement due to wear, or maintenance of any kind except normal lubrication and fueling. (One shaft was broken by improper sprocket installation during the regular operator's vacation, at a cost of \$28.)

Performance like this—plus compactness and maneuverability, big capacity, and dependability in turning out high daily footage regardless of soil and weather conditions—goes a long way toward explaining why Cleveland "Baby Diggers" have been the gas industry's choice in trenchers for well over 30 years.



Fast moving, too! . . . Cleveland "Baby Diggers" hustle safely from job to job . . . at legal speed limits . . . because they are so easily portable on fast loading Cleveland trailers.

Write for Full Line CLEVELAND Bulletin or see your Local Distributor

THE CLEVELAND TRENCHER COMPANY • 20100 St. Clair Ave., Cleveland 17, Ohio



CLEVELAND

INDUSTRIAL PROGRESS (Continued)

"We should be able to produce power at a profit with the second installation," said Robert W. Hartwell, director of Edison's nuclear power development.

The second unit, Mr. Hartwell said, should be in the construction stage before the first is in operation by 1960.

In the second and third plants Edison and its colleagues in Atomic Power Development Associates expect to take advantage of new ideas and processes which emerge during operation of the first pilot installation.

New Raytheon Literature

A NEW Raytheon bulletin (No. 3-206) describes the Model TCR-12 TELELINK, an automatic two-way telephone, telegraph, teletype and telemetering microwave communications system operating in the common carrier or industrial bands. Designed to meet FCC standards, the TCR-12 is adaptable to meet either permanent or changing installation requirements. No modification is required for interconnection with most standard communications systems.

For further information, write to: Raytheon Manufacturing Company, Waltham, Massachusetts.

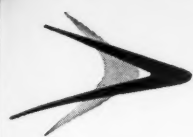
Training Activities in Power Industry Shown in Labor Dept. Survey

FIFTY-SIX hundred apprentices and 3,275 other workers are in training in 500 of the Nation's major electric power companies, a survey released by the U. S. Department of Labor's Bureau of Apprenticeship shows.

The 500 companies are among 920 visited by the Bureau's field representatives to determine what is being done to meet the skilled worker needs of the electrical power industry. The generating capacity of the electrical industry is expected to increase to 163 million kilowatts by 1960, as compared with 103 million kilowatts in 1954.

According to the survey, training activity in the industry is fairly extensive, especially in the larger power plants, but the industry as a whole still has a big job to do to meet its skilled worker needs. Most of the apprentices, the survey shows, are training for work as linemen. Others are training for jobs as powerhouse and meterman electricians, cable splicers, and allied occupations.

The need in the industry for additional training is a continuing problem. (Continued on page 26)



THE FORWARD LOOK ...IN TRUCKS!



Dodge has changed the picture
on performance, price!

Today there's a changed picture of truck power, payload, price! For example, do you know the answers to these 3 questions?

1—What trucks provide the highest horsepower of the 5 leading makes in every conventional model, ½-ton through 3½-ton?

2—What trucks have the highest payload in more models, 1½- through 4-ton, than any other leading make?

3—What trucks have the lowest factory retail price in more popular models than any other leading make?

In each case the answer is, "Dodge 'Job-Rated' trucks" . . . the trucks with the Forward Look! Find out for yourself how Dodge trucks give you more visibility, more modern styling, more of everything you want in a truck. See your dependable Dodge Truck dealer now.

ALL-NEW
DODGE
"Job-Rated"
TRUCKS

PRODUCTS OF CHRYSLER CORPORATION

tional skilled workers, particularly linemen, is reflected by the large proportion of apprentices to journeymen employed by many companies. The average ratio, the surveys shows, is one apprentice to about every four journeymen linemen.

Copies of the study, titled "Training Activities of Electric Power Companies" may be obtained by writing to the Bureau of Apprenticeship, U. S. Department of Labor, Washington 25, D. C.

Texas Power & Light Wins Charles A. Coffin Award

TEXAS Power & Light Company of Dallas, Texas, was given the electric industry's highest honor, the Charles A. Coffin Award for 1954, in ceremonies at the recent 23rd annual convention of the Edison Electric Institute in Los Angeles.

The award was presented to W. W. Lynch, TP&L president, by Philip D. Reed, chairman of the Board, General Electric Company. The award is presented annually by G-E through the Edison Electric Institute to the electric utility company judged as mak-

ing the greatest contribution to the advance of the industry and service to customers.

In selecting the winner this year, the judges cited Texas Power & Light Company "for extraordinary enterprise and resourcefulness in uncovering and developing the extent and value of untapped natural resources . . . and for its contribution to the industrial and agricultural development of Texas."

The judges, this year, were Harold Quinton, retiring president of Edison Electric Institute; Dr. James R. Killian, Jr., president of Massachusetts Institute of Technology; and C. W. Kellogg, past president of Edison Electric Institute.

Important among the reasons Texas Power & Light Company won the award were its research program of preparing and using lignite in power plant boilers, pointing toward the development of low-cost fuel for production of electric power, and the use of this natural resource for the further industrialization of the TP&L service area.

In the citation by the Coffin Award judges, TP&L's lignite investigations

are commended as "nationally recognized to be of benefit to the industry and the public by opening up the potentialities for economic exploitation of the nation's vast and largely undeveloped deposits of lignite and other low rank, non-coking fuels."

TP&L's contributions to both industrial and agricultural development of Texas were mentioned in the citation.

7th Annual Accident Prevention Conference to Be Held in Little Rock, Arkansas

SAFETY awards, films and panel discussions will highlight the Seventh Annual Accident Prevention Conference co-sponsored by the American Gas Association and Southern Gas Association Accident Prevention Committees, September 14-15 at the Marion Hotel, Little Rock, Arkansas. More than 100 delegates from all parts of the United States and Canada are expected to attend.

The conference is being co-sponsored by the A.G.A. and S.G.A. Accident Prevention Committees whose

(Continued on page 28)

ADVANCE SHEETS OF PUBLIC UTILITIES REPORTS

► In order to meet an increasing demand for faster reporting of full-text decisions of state and Federal regulatory commissions and of the courts on appeal from the commissions' decisions, we inaugurated on June 3, 1955, a new service—**Advance Sheets of Public Utilities Reports, Third Series.**

► *For those who wish to keep currently informed of the new concepts, rapid expansion and ever increasing problems in the field of public service regulation, these **Advance Sheets**, issued twice a month, will be found invaluable.*

Subscription price—\$24. a year

PUBLIC UTILITIES REPORTS, INC.

Publishers

309 Munsey Building, Washington 4, D. C.



This machinist is "miking" a disc for one of the largest butterfly valves ever built — 192" diameter. Newport News built 3 such valves, each weighing 446,000 lbs., for the Ross Power Plant, Skagit Project, Department of Light, City of Seattle, Washington. Designed for a water flow of 3,620 cu. ft. per sec., and a hydrostatic pressure of 290 psi., these valves were shop tested by Newport News at 450 psi. They are hydraulically operated with oil at 1,500 psi. pressure.

Birth of a **200-ton** Butterfly

This disc for a 16-foot butterfly valve reflects two basic advantages of Newport News fabrication...

First, it exemplifies the *careful attention* Newport News craftsmen give to every detail. And secondly, it attests to the *quality* with which Newport News produces in massive equipment for public utilities and allied industries...due to Newport News' high integration of skill and production facilities.

Additional advantages accrue to customers from extensive work conducted in Newport News' testing laboratories on problems related to water power equipment.

Avail yourself of the engineering talent, along with the specialized production techniques and the skill of Newport News craftsmen operating vast steel fabricating shops, five huge machine shops, drop forging and die facilities along with acres of brass, iron and steel foundries.

Let us bid on equipment for your present or future projects. If you are not familiar with the way Newport News can help you, write for our illustrated booklet entitled "Water Power Equipment" ...it's yours for the asking.

NEWPORT NEWS

**Shipbuilding and
Dry Dock Company
Newport News, Virginia**

chairmen are Leo Nuhfer, safety director, The Peoples Natural Gas Company, Pittsburgh, Pa., and Robert M. Hutchison, director of research and safety, Houston Natural Gas Corporation, Houston, Texas.

Thus far 78 gas companies are among those to receive Accident Prevention Certificates for having reduced their 1954 accident frequency rate 25 per cent or more over 1953.

Conference sessions comprise an appraisal of Gas Industry Safety, Fleet Safety, Barricading Practices, Leak Detection Techniques and two field trips to nearby gas pipeline compressor stations.

General Telephone's Plant Investment Reaches Half-Billion Mark

THE General Telephone System now has a plant investment in excess of \$500,000,000, it was reported recently by W. R. Jarmon, president of General Telephone Company of the Northwest, one of the system's 16 operating telephone companies with general offices in Spokane.

Citing figures released by Donald C. Power, president of General Telephone Corporation in New York, Mr. Jarmon declared that the half-billion mark in plant investment was reached in April of this year. It is estimated now that by the end of the year the total plant investment for the system will reach \$538,800,000, or an increase of \$51,600,000 over the close of 1954.

At the end of World War II, the telephone plant of the General System amounted to \$111,600,000 and had climbed to \$269,700,000 by the end of 1950.

During 1955 it is estimated that the construction and expansion budget for the General Telephone System will be at the all-time high of \$78,700,000, or \$7,800,000 more than was spent for expansion in 1954. Mr. Jarmon said that his own company's budget for 1955 calls for gross construction amounting to approximately \$2,400,000.

New Utility Ditcher Offered By Gar Wood Industries

GAR WOOD Industries, Inc., announces the introduction of a new pipeline and utility ditcher, the Buckeye model 308.

The Buckeye 308 is a heavy-duty, wheel-type ditcher especially designed

for digging cross-country ditch and for city gas, water, oil, sewer, conduit and cable lines. It digs to a maximum depth of 5' 6" with optional width of cut varying from 16" to 32" increments. The new Buckeye 308 is said to be exceptionally fast and flexible in all types of soils and under almost any job condition.

Full data may be obtained from the manufacturer at Wayne, Michigan.

AGA Announces Community Relations Advertising Mat Service

"GAS Serves You—and the Community, Too!" is the theme of a new community relations advertising mat service produced for member companies of American Gas Association. A major activity of the 1955 AGA Public Information Program, a PAR activity, the ad series is designed to dramatize the local gas company as an important community citizen under the free enterprise economy.

Six introductory ads, for release on a monthly basis from July 15 through December 15, are contained in a brochure mailed to nearly 400 gas companies at the end of June. These ads seek to interpret the local gas company's triple role: (1) as a growth-producing, tax-paying citizen of the community; (2) as the community's supplier of a low-cost but premium domestic, commercial and industrial fuel, and (3) as a dynamic part of the American free enterprise system.

Copy and art of the first six ads show how the typical American gas company, in fulfilling its community responsibilities and opportunities for service, builds up its local area. In so doing the local gas company exemplifies the country's free enterprise system in action.

Each ad is built around the job of a specific member of the gas company employee team. Copy stresses the interdependence of company and community and underlines the heavy stake that each has in the prosperity of the other. Strong emphasis is also placed on the contributions the privately-owned and locally-managed gas company makes to community stability and growth through taxes, payrolls and by supplying a premium multipurpose fuel.

Cleveland Trencher Appointments

THE Cleveland Trencher Company, Cleveland, Ohio, has announced the

promotion of E. B. Volmar to vice president in charge of manufacturing and the appointments of Clifford P. Morgan as sales manager and David L. Raymond as chief engineer.

Works manager for the past 5 years and an employee of the company for over 15 years, Mr. Volmar has also been elected to the company's board of directors. Mr. Morgan steps into the post previously filled by John A. Penote, now vice president in charge of sales. Mr. Raymond succeeds Albert R. Askue who retired recently after serving as chief engineer for over 15 years.

Montana Power Plans \$15,000,000 Plant

MONTANA Power Company, Butte, asked the Federal Power Commission for permission to build and operate a \$15 million hydroelectric power project with a 25,000 kilowatt capacity.

Under the company's proposal, the new project would be linked with eight existing developments to form one power project on the Madison and Missouri rivers in Montana. Montana Power asked FPC to license all these developments together as the "Missouri-Madison Project."

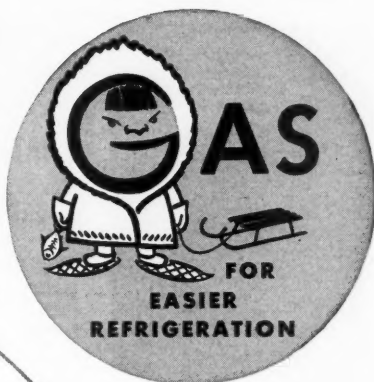
The development the company wants permission to build would include a concrete gravity dam, a reservoir, a power house and 2.5 miles of transmission lines.

H. F. Bower Appointed Director Of BDSA Water & Sewerage Industry and Utilities Division

THE appointment of Harry F. Bower of Park Ridge, Illinois, as director of the water and sewerage industry and utilities division of the Business and Defense Services Administration, U. S. Department of Commerce, was announced recently by BDSA Administrator Charles F. Honeywell.

Mr. Bower is an official of James B. Clow & Sons, Chicago, manufacturer of cast iron pipe, valves and other water and sewerage equipment. He is on loan to BDSA from his company under a rotation system in which key business executives serve the Government without compensation for periods of six months or longer.

He succeeds Charles W. Krause of the Neptune Meter Company of New York.

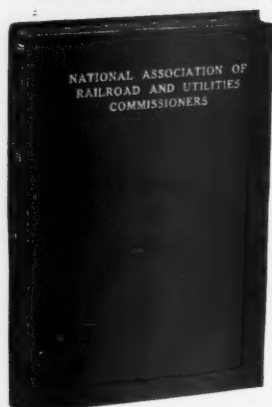


© The Columbia Gas System

Columbia Gas System
delivers a modern miracle
24 Hours-A-Day!

CHARLESTON GROUP: United Fuel Gas Company, Atlantic Seaboard Corporation, Amere Gas Utilities Company, Virginia Gas Distribution Corporation, Big Marsh Oil Company, Central Kentucky Natural Gas Company; **COLUMBUS GROUP:** The Ohio Fuel Gas Company; **PITTSBURGH GROUP:** The Manufacturers Light and Heat Company, Binghamton Gas Works, Cumberland and Allegheny Gas Company, Home Gas Company, The Keystone Gas Company, Inc., Natural Gas Company of West Virginia; **OIL GROUP:** The Preston Oil Company.

**NO'W AVAILABLE!
LIMITED EDITION!**



PROCEEDINGS 1954 CONVENTION

AT CHICAGO

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS

THIS important edition contains valuable material on the subject of regulation of rates and services of public utilities and transportation companies including the following:

Regulation and Technological Developments in the Communication Field — Recent Developments in Transportation—The Problem of Financing the Cost of Effective Regulation — State-Federal Cooperative Regulation of Motor Carriers — Telephone Committee Report—Depreciation—Accounts and Statistics—Engineering—Corporate Finance—Legislation—Rates of Public Utilities—Railroad Passenger Deficit Problem—Resolutions adopted by the Association.

Price \$10.00

OTHER PUBLICATIONS OF THE ASSOCIATION

Local Service Telephone Rates in the U. S.:

An excellent compilation of rates prepared by NARUC subcommittee on "exchange rates" for all exchanges of Bell System, the rates of cities of fifty thousand population or more for Bell and Independent exchanges, rates of borrowers from R.E.A., and tabulation of above exchanges which had ten cent coin telephone rate in effect June 30, 1954. 125 pages punched for use in loose leaf binder \$2.00

Message Toll Telephone Rates and Disparities:

400 pages of text, tables and charts, hard back cover—the report of the NARUC-FCC Joint Toll Rate Subcommittee \$6.50

Telephone Separations Manual with 1952 Addendum \$2.00

Depreciation:

1943-1944 Reports of Committee on Depreciation (reprinted in one volume because of special demand). The reports present a very comprehensive and complete analysis of the problems of depreciation on public utility regulation and set forth conclusions concerning the policies and practices which should be followed in respect thereto. 326 pages, paper bound \$4.50

(1946) Methods of Pricing Retirements from Group Property Accounts 1.25

(1948) Letter Symbols for Mathematics of Depreciation 1.00

(1948) Half Cycle Methods of Estimating Service Life 1.00

(1950) Remaining Life Basis of Accounting for Depreciation50

(1954) Report of Committee on Depreciation — an analysis of "economic depreciation" .75

Interpretations of Uniform System of Accounts for Electric Utilities
Cases Nos. 45 to 119 (1938 to 1954) 1.50

Interpretations of Uniform System of Accounts for Gas Utilities
Cases Nos. 1 to 80 (1938 to 1954) 1.50

Interpretations of Uniform System of Accounts for Water Utilities
Cases Nos. 1 to 65 (1938 to 1954) 1.50

(When remittance accompanies order, we pay forwarding charges)

**NATIONAL ASSOCIATION OF RAILROAD AND
UTILITIES COMMISSIONERS**

P. O. BOX 684

WASHINGTON 4, D. C.

PROFESSIONAL DIRECTORY

• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, financing, design, and construction. » »

THE AMERICAN APPRAISAL COMPANY

ORIGINAL COST STUDIES • VALUATIONS • REPORTS

for

ACCOUNTING AND REGULATORY REQUIREMENTS

NEW YORK WASHINGTON CHICAGO MILWAUKEE SAN FRANCISCO
and other principal cities

BLACK & VEATCH

CONSULTING ENGINEERS

Electricity, Natural Gas and Water Utilities
Production, Transmission, Distribution

Reports, Design, Supervision of Construction
Investigations, Valuation and Rates

4706 BROADWAY, KANSAS CITY 2, MISSOURI (SINCE 1915)

BODDY, BENJAMIN AND WOODHOUSE, INC.

CONSULTING ENGINEERS

JAMES W. PARKER, SENIOR CONSULTANT

*Power Plant Design, Specification, and Construction Supervision
Economic and Thermodynamic Studies, Technical Services and Reports*
28 WEST ADAMS AVENUE DETROIT 26, MICHIGAN

DAY & ZIMMERMANN, INC.

ENGINEERS

NEW YORK

PHILADELPHIA

CHICAGO

DESIGN, CONSTRUCTION, INVESTIGATIONS, REPORTS, APPRAISALS AND MANAGEMENT



PROPANE PLANTS

★ Standby

★ Augmentation

★ 100% Town Supply

Design • Engineering • Construction

DRAKE & TOWNSEND

11 WEST 42ND STREET NEW YORK 36, N. Y.



THE FLUOR CORPORATION, LTD.

Engineers • Constructors • Manufacturers

LOS ANGELES 22, CALIFORNIA

Builders of steam generating and hydro-electric power plants

New York • Chicago • Houston • San Francisco • Tulsa • Philadelphia • Toronto • Calgary • Denver

Affiliates: SINGMASTER & BREYER, INC., New York City, N.Y.

H. G. ACRES COMPANY, LTD., Niagara Falls, Ontario

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY (continued)



Ford, Bacon & Davis
Engineers

VALUATION
REPORTS

CONSTRUCTION
RATE CASES

NEW YORK • CHICAGO • LOS ANGELES



GIBBS & HILL, INC.

CONSULTING ENGINEERS
DESIGNERS • CONSTRUCTORS
NEW YORK LOS ANGELES



GILBERT ASSOCIATES, INC.
ENGINEERS • CONSULTANTS • CONSTRUCTORS
607 WASHINGTON ST.
READING, PA.

• WASHINGTON • PHILADELPHIA • NEW YORK

W. C. GILMAN & COMPANY

CONSULTING ENGINEERS
ELECTRIC — GAS — TRANSIT — WATER
Financial and Economic Reports
Valuations—Rate of Return—Depreciation Studies
Traffic Surveys—Fare Analyses

55 Liberty Street

New York 5, N. Y.

CYRUS G. HILL, ENGINEERS

Public Utility Properties
Valuation and Operating Reports
Plans — Design — Construction — Rate Cases

134 So. LaSalle Street

Chicago 3, Illinois

GUSTAV HIRSCH ORGANIZATION, INC.

1347 West 5th Ave., Columbus (12) Ohio
Telephone Hudson 8-0611

Consulting and Supervisory Engineers and Contractors
Construction and Operation of Utility Enterprises

Mention the FORTNIGHTLY—It identifies your inquiry

PROFESSIONAL DIRECTORY (continued)

HOOSIER ENGINEERING COMPANY

Erectors of Transmission Lines

1384 HOLLY AVENUE

COLUMBUS, OHIO

JENSEN, BOWEN & FARRELL

ENGINEERS

ANN ARBOR, MICHIGAN

APPRAISALS—INVESTIGATIONS—DEPRECIATION STUDIES—
COST TRENDS — REPORTS

for Rate Cases, Security Issues, Regulatory and Accounting Requirements
ORIGINAL COST AND CONTINUING PROPERTY RECORD
DETERMINATION



The Kuljian Corporation

ENGINEERS • CONSTRUCTORS
POWER PLANT SPECIALISTS

DESIGN • CONSTRUCTION • MANAGEMENT
SURVEYS • INVESTIGATIONS • REPORTS

1200 N. BROAD ST., PHILADELPHIA 21, PA.

William S. Leffler, Engineers Associated

NOROTON, CONNECTICUT

Utility Management Consultants Specializing in

COST ANALYSIS

for past 35 years

Send for brochure: "The Value of Cost Analysis to Management"

GAS
ELECTRIC
WATER

REGULATORY
AND
MUNICIPAL
PROBLEMS

N. A. LOUGEE & COMPANY

Engineers and Consultants

REPORTS—APPRAISALS—DEPRECIATION STUDIES

RATE CASES—BUSINESS AND ECONOMIC STUDIES

120 Broadway

New York

CHAS. T. MAIN, INC.

Power Surveys—Investigations—Valuations—Reports

Steam, Hydro Electric and Diesel Plants

Gas Turbine Installations

80 FEDERAL STREET

BOSTON 10, MASS.

Mention the FORTNIGHTLY—It identifies your inquiry

PROFESSIONAL DIRECTORY (continued)

MIDDLE WEST SERVICE COMPANY

Business and Engineering Consultants

(INCLUDING JAY SAMUEL HARTT CONSULTING ENGINEERS)

Organization • Corporate Practices • Accounting • Budgeting • Financing • Taxes • Stock Transfer • Appraisals • Valuations • Economic Analysis • Cost of Money Studies • Depreciation Studies • Engineering • System Planning • Industrial Engineering • New Business • Rates • Pricing • Sales and Marketing • Safety • Insurance • Pensions • Employee Welfare • Public Relations • Advertising • Personnel • Industrial Relations

20 NORTH WACKER DRIVE • CHICAGO 6, ILLINOIS

Pioneer Service & Engineering Co.

CONSULTING, DESIGNING AND
OPERATING ENGINEERS
PURCHASING

231 SOUTH LA SALLE STREET



SPECIALISTS IN
ACCOUNTING, FINANCING, RATES,
INSURANCE AND DEPRECIATION

CHICAGO 4, ILLINOIS

SANDERSON & PORTER
ENGINEERS
AND
CONSTRUCTORS

S&P

Sargent & Lundy
ENGINEERS

*Steam and Electric Plants
Utilities—Industrials
Studies—Reports—Design—Supervision
Chicago 3, Ill.*

The J. G. WHITE ENGINEERING CORPORATION

*Design—Construction—Reports—Appraisals
Consulting Engineering*

80 BROAD STREET

NEW YORK 4, N. Y.

Whitman, Requardt and Associates

DESIGN — SUPERVISION

REPORTS — VALUATIONS

1304 ST. PAUL STREET

Publishers of the 35-year-old
HANDY-WHITMAN INDEX

for Public Utility
Construction Cost Trends
Including Hydro-Electric Properties

BALTIMORE 2, MARYLAND

Mention the FORTNIGHTLY—It identifies your inquiry

PROFESSIONAL DIRECTORY (concluded)

Abrams Aerial Survey Corporation

PHOTOGRAMMETRIC ENGINEERS FOR MORE THAN A
THIRD OF A CENTURY

*Aerial Photography — Atlas Sheets — Mosaics —
Plan and Topographic Maps — Profiles — Infra-red
Photography — Photo-interpretation Instruments*

614 E. Shawessee St.

Lansing, Michigan

Peter F. Loftus CORPORATION

DESIGN AND CONSULTING ENGINEERS

Electrical • Mechanical • Structural
Civil • Thermodynamic • Architectural

FIRST NATIONAL BANK BLDG., PITTSBURGH 22, PA.

EARL L. CARTER

Consulting Engineer

REGISTERED IN INDIANA, NEW YORK, OHIO,
PENNSYLVANIA, WEST VIRGINIA, KENTUCKY
*Public Utility Valuations, Reports and
Original Cost Studies*

910 Electric Building

Indianapolis, Ind.

LUCAS & LUICK

ENGINEERS

DESIGN, CONSTRUCTION SUPERVISION,
OPERATION, MANAGEMENT, APPRAISALS,
INVESTIGATIONS, REPORTS, RATES

231 S. LaSalle St., CHICAGO

ENGINEERS, CONSTRUCTION AND
MAINTENANCE CONTRACTORS
for the GAS INDUSTRY



**CONSOLIDATED
GAS AND SERVICE CO.**

327 So. LaSalle St., Chicago 4, ILL.

LUTZ & MAY

Consulting Engineers

STEAM, GAS & DIESEL POWER STATIONS
PUMPING PLANTS—ELECTRIC SYSTEMS
REPORTS—DESIGN—APPRAISALS

1009 Baltimore

Kansas City 6, Mo.

GANNETT FLEMING CORDRY AND CARPENTER, INC.

ENGINEERS

HARRISBURG, PENNSYLVANIA

*Investigations—Reports—Appraisals
Original Cost and Depreciation Studies
Rate Analyses—Insurance Surveys*

MINER AND MINER

CONSULTING ENGINEERS

INCORPORATED

GREELEY

COLORADO

FRANCIS S. HABERLY

CONSULTING ENGINEER

*Valuation — Depreciation
Investigations and Reports*

122 SOUTH MICHIGAN AVENUE, CHICAGO

A. S. SCHULMAN ELECTRIC CO.

Electrical Contracting Engineers

TRANSMISSION LINES—DISTRIBUTION—POWER
STATION—INDUSTRIAL—COMMERCIAL
INSTALLATIONS

CHICAGO

LOS ANGELES

JACKSON & MORELAND

Engineers and Consultants

Design and Supervision of Construction

Reports — Examinations — Appraisals

Machine Design — Technical Publications
BOSTON NEW YORK

SLOAN, COOK & LOWE

CONSULTING ENGINEERS

120 SOUTH LA SALLE STREET

CHICAGO

*Appraisals — Reports
Operating — Financial — Plant*

Mention the FORTNIGHTLY—It identifies your inquiry

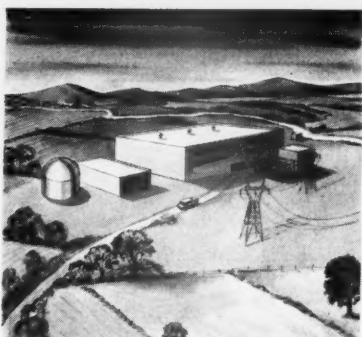
INDEX TO ADVERTISERS

[The Fortnightly lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.]

A		K	
Abrams Aerial Survey Corporation	35	*Kellogg, M. W., Company, The	
*Allen & Company		*Kidder, Peabody & Co.	
Allis-Chalmers Manufacturing Company	14-15	*Kuhn, Loeb & Co.	
American Appraisal Company, The	31	Kuljian Corporation, The	33
American Creosoting Company	19	L	
American Telephone & Telegraph Company	13	*Langley, W. C., & Co.	
*Analysts Journal, The		Leffler, William S., Engineers Associated	33
B		*Lehman Brothers	
Babcock & Wilcox Company, The	4-5	*Loeb (Carl M.), Rhoades & Co.	
Black & Veatch, Consulting Engineers	31	Loftus, Peter F., Corporation	35
*Blyth & Company, Inc.		Lougee, N. A., & Company, Engineers	33
Boddy, Benjamin and Woodhouse, Inc.	31	Lucas & Luick, Engineers	35
C		Lutz & May, Consulting Engineers	35
Carter, Earl L., Consulting Engineer	35	M	
Cleveland Trencher Co., The	24	Main, Chas. T., Inc., Engineers	33
Columbia Gas System, Inc.	29	Martin Publications	Inside Front Cover
Commonwealth Associates, Inc.	18	*Matthews, Jas. H., & Company	
Commonwealth Services, Inc.	18	*McCabe-Powers Auto Body Company	
Consolidated Gas and Service Co.	35	*Merrill Lynch, Pierce, Fenner & Beane	
D		Middle West Service Co.	34
Day & Zimmermann, Inc., Engineers	31	Miner and Miner	35
Delta-Star Electric Division, H. K. Porter Co., Inc.	21	*Minnesota Mining & Manufacturing Company	
Dodge Division of Chrysler Corp.	25	*Morgan Stanley & Company	
Drake & Townsend, Inc.	31	Motorola Communications & Electronics, Inc.	20
E		N	
Ebasco Services, Incorporated	17	National Association of Railroad & Utilities	
*Electro-Motive Division, General Motors		Commissioners	30
F		Newport News Shipbuilding & Dry Dock	
*First Boston Corporation, The		Company	27
Fluor Corporation, Ltd., The	31	*Nuclear Development Associates, Inc.	
Ford, Bacon & Davis, Inc., Engineers	32	P	
*Foster Wheeler Corporation		Pioneer Service & Engineering	
G		Company	Inside Back Cover-34
Gannett Fleming Corrdry and Carpenter, Inc.	35	R	
General Electric Company	Outside Back Cover	Recording & Statistical Corporation	11
Gibbs & Hill, Inc., Consulting Engineers	32	Remington Rand Inc.	9
Gilbert Associates, Inc., Engineers	32	Robertson, H. H., Company	16
Gilman, W. C., & Company, Engineers	32	*Rust Engineering Company, The	
*Glore, Forgan & Co.		S	
*Guaranty Trust Company of New York		*S & C Electric Company	
H		Sanderson & Porter, Engineers	34
Haberly, Francis S., Consulting Engineer	35	Sargent & Lundy, Engineers	34
*Halsey, Stuart & Company, Inc.		Schulman, A. S., Electric Co., Engineers	35
*Harriman Ripley & Co.		Sloan, Cook & Lowe, Consulting Engineers	35
*Haslam Associates, Inc.		*Smith, Barney & Co.	
Hill, Cyrus G., Engineers	32	*Southern Coal Company, Inc.	
*Hill, Hubbell and Company		*Sprague Meter Company, The	
Hirsch, Gustav, Organization, Inc.	32	T	
Hoosier Engineering Company	33	*Texas Eastern Transmission Corporation	
I		U	
*International Harvester Company, Inc.		*Union Securities Corporation	
Irving Trust Company	7	United States Steel Corporation	22
J		W	
Jackson & Moreland, Engineers	35	*Western Precipitation Corporation	
Jensen, Bowen & Farrell, Engineers	33	White, J. G., Engineering Corporation, The	34
		Whitman, Requardt and Associates	34

Professional Directory31-35

*Fortnightly advertisers not in this issue.



Pioneering New Horizons
in Power... Striving
today for peaceful
application of atomic
energy tomorrow

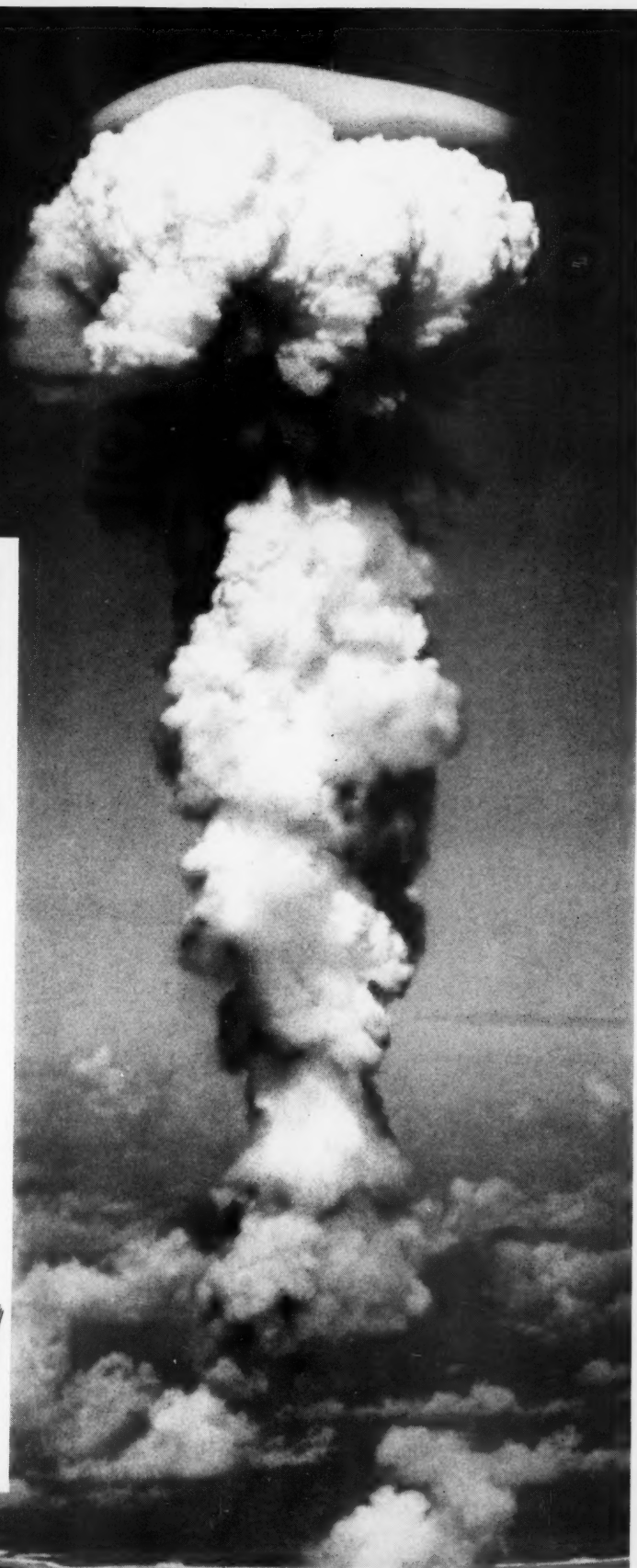
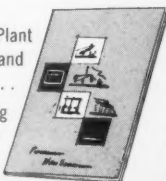


**Pioneer Service
& Engineering Co.**

231 SOUTH LA SALLE STREET, CHICAGO 4, ILLINOIS

Serving Power-Plant
Needs of Industries and
Utilities for 53 years...

Our booklet, "Pioneering
New Horizons," describes the
complete services we offer.





OPERATION VOLTAGE REPORT NO. 2

Key facts in the application of regulators and capacitors

FIG. 1

NO CORRECTION

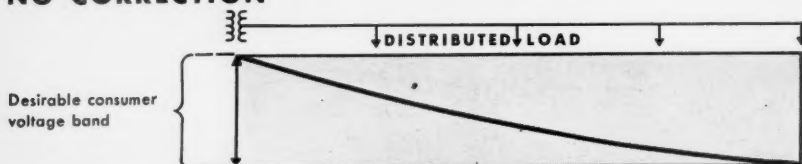


FIG. 2

ADD ONLY A REGULATOR

Source voltage can vary this much



FIG. 3

ADD ONLY CAPACITORS

Source voltage can vary this much

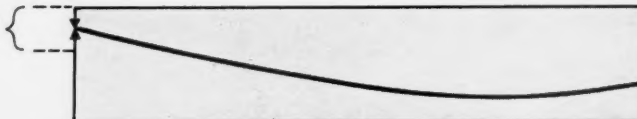
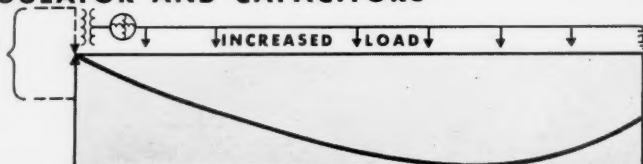


FIG. 4

ADD A REGULATOR AND CAPACITORS

Source voltage can vary this much



What happens to system voltage when capacitors and regulators are installed?

Figure 1 shows a full-load voltage profile along a distribution feeder with no voltage corrective devices. Figure 2 shows how a voltage regulator is capable of bucking and boosting varying source voltage so as to maintain voltage within limits all along the feeder.

Figure 3 shows what happens when only a switched capacitor bank is added to the feeder: The voltage spread along the feeder is reduced and additional feeder loading is possible.

Figure 4 shows the result of the addition of voltage regulators and switched capacitors: When used together, they provide an ideal means of accurately controlling voltage and increasing system

capacity for additional load. This produces satisfied customers, as well as providing the best return on system investment.

In fact, for all systems, the use of capacitors and regulators *always* results in superior voltage control and greater system load carrying capacity.

G-E engineers have just completed a comprehensive study of the problems of feeder voltage regulation. This report is the second in a series dealing with the important results of the study. If you would like to discuss voltage problems on your system, contact your G-E Apparatus Sales Engineer. General Electric Co., Schenectady 5, N. Y.

645-2



Portable demonstrator being used by G-E Engineers R. M. Butler and D. R. Samson to show effect of capacitors and regulators under variety of feeder load conditions.

GENERAL  **ELECTRIC**

G-E
n to
tors

XUM